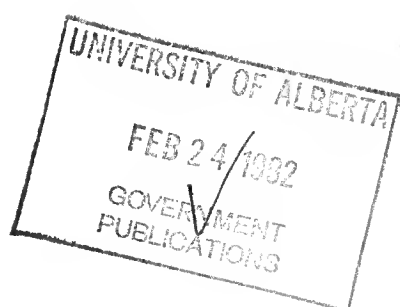


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ANNUAL REPORT OF THE DEPARTMENT OF PUBLIC WORKS 1920











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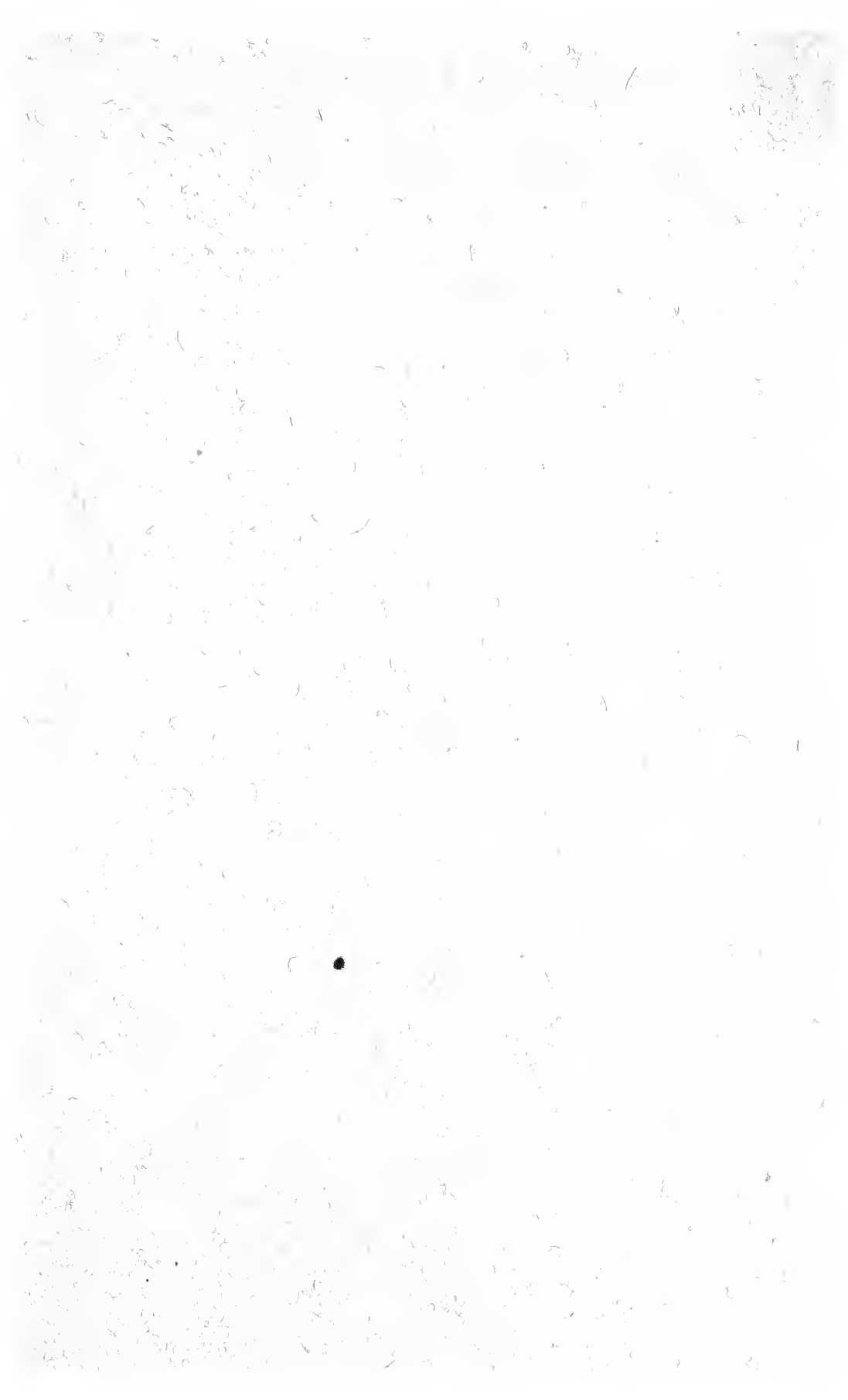
UNIVERSITY OF ALBERTA

ANNUAL REPORT  
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OF THE  
**DEPARTMENT OF PUBLIC WORKS**  
OF THE  
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**1920**

PRINTED BY ORDER OF THE LEGISLATIVE ASSEMBLY



EDMONTON:  
PRINTED BY J. W. JEFFERY, KING'S PRINTER  
1921





ANNUAL REPORT

OF THE

DEPARTMENT OF PUBLIC WORKS

OF THE

PROVINCE OF ALBERTA

1920

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1921



EDMONTON, February 24, 1921.

*To His Honour*

ROBERT GEORGE BRETT,

*Lieutenant Governor of the Province of Alberta.*

May it please Your Honour—The undersigned has the honour to submit herewith the Report of the Department of Public Works for the year ending December 31st, 1920.

Respectfully submitted,

A. J. McLEAN,

*Minister of Public Works.*



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# REPORT

## OF THE

### DEPUTY MINISTER OF PUBLIC WORKS

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HON. A. J. McLEAN,  
*Minister of Public Works,*  
Edmonton, Alberta.

SIR,—I have the honour to enclose herewith the Report of the Department of Public Works for the year 1920.

The work of the Department was carried on during the year in as efficient a manner as possible. In nearly all branches the work was severely handicapped by a shortage of labor, and the relatively high rates of wages which we had to pay. Some work had to be left undone and, where it was possible to secure an adequate supply of labor, a much smaller amount of work was accomplished than we were able to do in previous years from an equal appropriation. We continued to carry out the policy, adopted in the previous year, of employing returned soldiers wherever possible, and a large number were employed in various capacities during the year. In printing our Annual Report for the year 1919, we had it printed in two parts, as it was considered that the reports from the Provincial Institutions should be separate from the rest of the Public Works Report. This arrangement was found to be satisfactory, and will be followed again this year.

#### THE HIGHWAYS BRANCH.

The work of the Highways Branch was carried forward under conditions that were somewhat more unfavorable than usual. The scarcity of labor and the high rate of wages in the early part of the season made it difficult to proceed in the execution of the work as vigorously as we could have wished. In the later part of the season, in the southern portion of the Province in particular, the dry condition of the soil made the work much less effective than it would have been under normal conditions. Considerable progress was made in the building of several of the Main Highways, and it is hoped that we may be able to proceed with the work in the future with considerably more success as a result of the experience gained in the work of this season.

One bridge crew was kept employed all the year in the construction of steel bridges. The bridge over the Bow River at Carseland was completed as was also the bridge over the Fish Creek at Midnapore. The bridge over the Bow River at Bow City was nearing completion at the end of the year. A large number of wooden bridges, both of the truss, and pile trestle type, were also constructed. A full report of the operations of this Branch will be found in the report of the Engineer of Highways.

## THE SURVEYS BRANCH.

The continued demand for surveys made it necessary to continue the same field force in operation as in previous years. The illness, and subsequent death of one of the District Surveyors, Mr. W. H. Young, and the resignation of another, reduced the staff considerably, and the amount of field work done was materially lessened. There is therefore a large list of outstanding requests carried over into 1921.

## THE DRAINAGE BRANCH.

Petitions for the formation of six new Drainage Districts were received but action on these was deferred pending the contemplated revision of the Act.

In the Holden Drainage District the work is nearing completion and already a considerable benefit has been derived from the land that has been reclaimed.

Work has been begun on the Daysland Drainage Scheme, and two miles of the main ditch has been dug.

The work in the Viking District has been completed, and results have already shown that the anticipated benefit will be fully attained.

Sixty-five per cent. of the work of the Dickson District has been completed.

Sufficient has been accomplished by this branch of the service to show that future developments along these lines will meet a very real need.

## THE ARCHITECTURAL BRANCH.

The office work of this Branch has been especially heavy during the year as it was found necessary to modify the plans of the Department in connection with the proposed Normal School and Institute of Technology at Calgary. Complete plans and specifications were prepared and tenders called for. After considering the tenders, it was decided to considerably alter and modify the proposed work and a new set of plans and specifications were prepared.

Considerable construction work was done, consisting chiefly of the completion of contracts let in the previous year. The only new contracts let were for the laundry building in connection with the Asylum at Ponoka, the workshops building of the Calgary Technical Institute scheme and a police building at Peace River.

A large amount of repair work and alterations was necessary in the older buildings of the Province.

The work of maintenance and operation of public buildings is growing continually as the public buildings are being increased from year to year.

## STEAM BOILERS BRANCH.

As the country has returned to a more settled condition, the demand for boiler inspection has increased so that the work of this



branch was exceptionally heavy during the past year. This work has been carried on with the usual efficiency, and we are again able to report that no serious personal injury has been sustained by any one through the failure of a boiler governed by the Act.

#### ACCOUNTING AND CORRESPONDENCE BRANCHES.

In the work of the Accounting and Correspondence Branches there has been a considerable increase in the work, although the volume of correspondence has been somewhat reduced through the transfer of the Mines Branch to the Department of the Provincial Secretary.

#### THE PROVINCIAL INSTITUTIONS.

There has been a small increase in the population of these Institutions during the year, but probably not greater than the percentage of increase in the population of the Province.

There has also been a considerable increase in the per capita cost of their maintenance. This is largely accounted for by increased salaries paid and alterations, etc., charged to maintenance.

While the Provincial Institutions are not operated for the purpose of producing revenue, a considerable amount, approximately \$27,000.00, was derived from this source during this year.

The operation of these Institutions was in every way satisfactory, and full detailed information in regard to their operations will be found in the reports attached. These detailed reports will be published separately as in the previous year.

Respectfully submitted,

L. C. CHARLESWORTH,  
*Deputy Minister.*

## HIGHWAYS BRANCH

EDMONTON, February 24, 1921.

L. C. CHARLESWORTH, Esq.,

*Deputy Minister, Department of Public Works,*

Edmonton, Alberta.

SIR:—I have the honour to herewith submit the report of the work performed by the Highways Branch of the Department of Public Works during the year ending December 31st, 1920.

The cost of bridge construction was increased considerably during the year owing to the necessity of increasing the rate of wages to retain competent bridge men. Even as late as December 1st, the United Iron Workers increased their rate. There was a great deal of delay in obtaining delivery of bridge timber from the mills, the result being that only a small portion of the larger bridges were completed before the end of the year.

There were two hundred and thirty-two bridges constructed, and one hundred and eighty-nine repaired, making a total of four hundred and twenty-one dealt with during the year.

Work, started November, 1919, on the bridge over the Bow River at Carseland, consisting of four steel spans of 200 feet each on concrete, was completed and bridge opened for traffic early in the summer.

During the year material was ordered and delivered for twenty-one steel bridges. The largest, located over the Bow River at Bow City, consisting of three steel spans, on concrete, the two shore spans being 200 feet each, and a centre span of 250 feet. We expect to complete this bridge early in March, 1921. This central span is the longest highway steel span erected in this Province to date, the largest heretofore being 200 feet.

One single 150-foot steel span on concrete abutments over Fish Creek on the Calgary-Macleod Main Highways.

The work of the Highways Branch in earth road construction extended throughout the entire Province from the International Boundary on the south to Fort Smith on the extreme north, a distance of seven hundred and sixty-five (765) miles, and from the Saskatchewan boundary on the east to the summit of the Rockies in the Crow's Nest Pass, a distance of two hundred and seventy-five (275) miles.

Notwithstanding the area covered and the scarcity of labor, a great deal of good work was accomplished, and each year more satisfactory results are attained in co-operating with the Municipal Districts. In sections of the Province the only work done by Government road crews is on Main Highways, all other road improvements are carried out by the Municipal Authorities, certain portions of

which, if brought up to Government specifications, they are re-im-bursed for a percentage of the expenditure, as agreed upon prior to commencement of work, subject, of course, to inspection before payment is made. This method of handling the work is being extended so that in the near future it will be followed in all the older settled portions of the Province. This method, I believe, will have the effect of encouraging the Municipal Authorities to do a better class of work so as to qualify for the Government grant, as well as standardize the work of the various Municipal Districts throughout the Province.

Maintenance of earth roads being equally as important as construction, a road dragging competition was instituted with the view of extending and encouraging the use of the road drag by the Municipal Authorities. Only eight Municipal Districts entered the competition and although the entrants were few, they were from different sections of the Province; therefore, the excellent results attained became generally known, and the value of constant maintenance appreciated.

At the Municipal Convention, held in Calgary last November, a great many of the delegates expressed a desire to enter the 1921 competition, and although the 1920 entrants were few in number, the results they attained will bear fruit, and the competition will become more popular from year to year.

Under the provisions of the Public Highways Act, a map was prepared of each Municipal District in the Province, blue prints of which were mailed to the respective Municipal Authorities with the request that they outline the route of the District Highways which they wish established, at the end of the year only a small percentage of the Districts had submitted their recommendations in this connection.

Under the provisions of the Canada Highways Act, our general programme and route map was accepted and approved by the Federal Government. The Auditors from the Federal Government looked into the Accounting System of the Department, and stated that the method followed was entirely satisfactory.

Seventy ferries were in operation during the year. Sixty-seven of these were operated by the Department, and three operated by settlers where traffic was too light to warrant the employment of an operator. One new ferry was built and installed north of Chin on Oldman River; fourteen new scows were built for ferries already in operation.

I append hereto a full list of the work undertaken by the Highways Branch during the year.

Your obedient servant,

J. D. ROBERTSON,

*Engineer of Highways.*

## CONSTRUCTION AND RE-CONSTRUCTION OF BRIDGES, 1920

STREAM	LOCATION	SIZE AND CLASS OF BRIDGE
Atinoswe Creek	11/12-59-9-4	One 20-ft. pile span.
Angling Creek	4-62-2-4	One 18-ft. pile span.
Atinoswe Creek	35/36-57-8-4	
Big Gully Creek	35/36-51-2-4	One 16-ft. pile span
Blackfoot Coulee	E of S.W 20-48-1-4	One 16-ft. pile span
Branch of Muskeg Creek	S E. 6-66-22-4	One 14-ft. log span
Branch of Parflesh Creek	28/29-23-21-4	Three 20-ft pile spans.
Branch of Roselind Creek	9/16-27-19-4	One 20-ft pile span
Branch Beaver Dam Creek	S W 30-37-12-4	One 20-ft pile span
Beddington Creek	22/27-27-2-5	Two 18-ft. pile spans.
Branch of Beddington Creek	17/18-27-2-5	One 20-ft pile span.
Bench Creek	N E. 31-53-16-5	One 26-ft log span.
Bow River	N W. 33-21-25-4	Four 200-ft steel spans
Berry Creek	N 36-24-13-4	One 60-ft. timber truss.
Berry Creek	14-27-12-4	One 60-ft. timber truss.
Berry Creek	35/36-22-12-4	One 60-ft. timber truss.
Berry Creek	8/17-26-12-4	One 60-ft timber truss.
Bullpound Creek	14-26-14-4	Two 20-ft. pile spans.
Bullpound Creek	16-25-14-4	Two 20-ft. pile spans.
Berry Creek	S 2-24-13-4	One 20-ft and two 16-ft. pile spans
Bullpound Creek	12/13-27-14-4	Two 20-ft. pile spans
Branch of Weed Creek	N. 12-49-28-4	One 18-ft. pile span
Branch of Weed Creek	S 30-49-27-4	Two 20-ft spans on piles.
Branch of Weed Creek	S 32-48-27-4	One 20-ft span on piles.
Bull Creek	S 2-58-9-5	Drive piles for M D.
Branch of Long Coulee	9/16-15-23-4	One 20-ft. pile span.
Branch of Long Coulee	12/13-15-23-4	One 20-ft. pile span.
Branch of Blindman River	31/32-41-2-5	One 16-ft. pile span
Branch Knee Hill Creek	26/27-32-27-4	One 20-ft. pile span
Branch Bear Creek	N E 1/4 21-74-8-6	Two 18-ft pile spans
Branch Bear Creek	In 3-74-8-6	Three 18-ft pile spans
Bremner Creek	R. 1. 55/49-77-5-6	Three 18-ft pile spans.
Bear Creek	5-73-7-6	Two 18-ft. pile spans
Beaton Creek	7-87-24-5	One 30-ft timber truss on piles.
Branch Bearhead Creek	N E 1/4 12-81-20-5	Two 16-ft pile spans.
Backwater of Pembina River	E. of N 1/2 25-60-1-5	Five 16-ft. pile spans.
Bear Creek	E 14-63-27-4	One 20-ft pile span
Branch of Riviere-Qui-Barre	W. 6-57-27-4	One 14-ft. span on piles.
Branch Iron Creek	W. 18-44-12-4	One 16-ft pile span
Branch of Iron Creek	31/32-45-13-4	Two 20-ft. pile spans
Big Knife Creek	10/15-40-17-4	Two 20-ft. pile spans
Big Knife Creek	19/24-38-16/17-4	One 20-ft pile span.
Beaver River	S E. 1/4 27-62-5-4	Three 60-ft timber trusses.
Beaver Creek	S E 1/4 25-62-6-4	Three 60-ft. timber trusses and three 18-ft. pile spans.
Beaverhills Creek	11/12-56-20-4	Three 18-ft pile spans.
Bigstone Creek	26/27-46-25-4	Three 20-ft pile spans.
Bigstone Creek	N E. 7-46-25-4	Four 16-ft. pile spans.
Creek in Blood Indian Reserve	34-24-10-4	One 16-ft pile span.
Creek in Blood Indian Reserve	10/15-25-10-4	One 16-ft. pile span
Creek	W 30-66-23-4	Fifteen 12-ft pile spans.
Calling River	32-71-21-4	One 16-ft log span
Creek into Calling Lake	8-72-21-4	One 21-ft. span crib abutments.
Creek into Calling Lake	19-72-21-4	One 16-ft crib span
Creek into Calling Lake	31-72-21-4	One 17-ft. crib span.
Creek into Calling Lake	36-72-22-4	One 24-ft. crib span
Creek into Calling Lake	S.E. Cor. 36-72-22-4	One 12-ft. crib span.
Creek	N E 9-67-22-4	One 24-ft. log span.
Creek into Calling Lake	S.W. 1-73-22-4	One 21-ft. log span.
Creek into Calling Lake	S.W. 31-72-21-4	One 16-ft. log span
Creek into Calling Lake	S.W. 29-71-21-4	One 16-ft. crib abutments.
Creek into Calling Lake	S.W. 11-73-22-4	One 17-ft. log span.
Creek	N.E. 21-66-23-4	One 16-ft. log span.

STREAM	LOCATION	SIZE AND CLASS OF BRIDGE
Creek into Calling Lake .....	20-71-21-4.....	One 16-ft log span.
Creek into Calling Lake .....	N E 6-71-21-4.....	One 16-ft. log span
Creek into Calling Lake .....	17-71-21-4.....	One 16-ft log span.
Creek into Athabasca River .....	8/17-67-22-4.....	One 20-ft. log span
Creek .....	N.E 35-64-21-4.....	One 50-ft. log span.
Creek into Athabasca River .....	N.E 27-66-22-4.....	One 12-ft. log span.
Creek .....	1-69-22-4.....	One 20-ft. log span.
Creek .....	S W 7-67-12-4.....	Reconstructing small bridge.
Creek .....	31/32-66-15-4.....	One 20-ft. pile span.
Creek .....	S W. 30-67-16-4.....	One 16-ft. pile span.
Creek .....	S 18-20-20-4.....	One 20-ft frame span.
Creek .....	34/35-23-21-4.....	One 20-ft. pile span.
Creek .....	N 8-27-18-4.....	One 20-ft. pile span.
Coulee .....	17-27-19-4.....	One 20-ft. pile span.
Clearwater Creek .....	35-62-5-5.....	One 16-ft. pole bridge.
Creek .....	27/28-34-11-4.....	One 20-ft. pile span
Coulee .....	13/14-31-27-4.....	Two 16-ft. pile spans.
Coulee .....	32/5-31/32-4-5.....	One 20-ft pile span.
Creek into Dogpound Creek .....	7/18-32-3-5.....	One 20-ft pile span.
Creek into Buffalo Bay .....	5-76-14-5.....	Not stated.
Creek .....	1/2-24-22-4.....	One 16-ft frame bent.
Creek into Berry Creek .....	28-28-11-4.....	One 60-ft timber truss
Creek into Saunders Lake .....	N 8-49-23-4.....	One 20-ft span on piles
Creek into Saunders Lake .....	E 6-50-24-4.....	Two 16-ft pile spans.
Creek into Whitemud Creek .....	W. 4-50-25-4.....	One 20-ft pile span
Creek into Whitemud Creek .....	W 9-50-25-4.....	One 20-ft span on piles.
Creek into Saskatchewan River .....	24/25-50-26-4.....	Three 20-ft pile spans.
Creek into Strawberry Creek .....	W 15-50-1-5.....	Two 20-ft pile spans.
Creek .....	E 20-48-26-4.....	One 20-ft span on piles
Creek into Lobstick River.....	23/26-54-9-5.....	Two 18-ft pile spans
Creek .....	6/13-58/50-6/7-5.....	One 78-ft. pile bridge.
Creek .....	N of N W 1/2 16-58-9-5.....	Not stated.
Creek into McLeod River .....	E 1/2 20-29-12-5.....	Three 18-ft. pile spans.
Creek .....	34/35-54-7-5.....	One 20-ft and two 16-ft. pile spans.
Creek .....	13/14-58-7-5.....	Drive piles for M D.
Creek .....	35-40-4-5.....	One 16-ft pile span.
Creek .....	W. 7-6-26-4.....	One 16-ft. pile span.
Creek .....	7-6-26-4.....	One 16-ft pile span.
Coulee .....	3/4-8-26-4.....	Two 18-ft. pile spans.
Creek .....	31/36-5-6/7-4.....	One 20-ft pile span.
Creek .....	17/18-14-25-4.....	One 20-ft. pile span
Creek into Fish Creek .....	4-23-1-5.....	One 20-ft pile span
Creek .....	31-81-10-5.....	Four 18-ft pile spans.
Creek .....	25/26-72-6-6.....	One 16-ft pile span.
Creek .....	N W. 30-83-22-5.....	Four 20-ft pile spans.
Connor Creek .....	N E 1/4 30-83-22-5.....	Two 20-ft. pile spans.
Creek .....	20-42-4-5.....	One 16-ft pile span.
Crow's Nest River .....	9-8-5-5.....	One 32-ft span on piles.
Creek .....	0/16-58-24-4.....	One 14-ft. span on piles
Creek .....	32/33-64-21-4.....	One 14-ft. pole span.
Creek .....	N E 35-64-21-4.....	One 50-ft. timber truss and one 16-ft. pile span.
Creek .....	2-65-21-4.....	Two bridges, both 25-ft. spans.
Creek .....	2/3-65-21-4.....	Two 20-ft. log spans.
Coulee .....	9/16-47-14-4.....	One 16-ft. pile span.
Creek .....	11/12-46-14-4.....	One 20-ft. pile span.
Creek .....	S. 1-37-17-4.....	One 16-ft. pile span.
Creek into Gough Lake .....	28/29-35-18-4.....	One 20-ft. pile span.
Creek .....	7/8-36-16-4.....	One 20-ft. pile span.
Creek into Sullivan Lake.....	22/23-36-16-4.....	One 20-ft. pile span.
Creek into Sullivan Lake.....	5/6-36-15-4.....	One 20-ft. pile span.
Creek .....	31-38-15-4.....	One 16-ft. pile span.
Creek .....	3-55-2-4.....	Two bridges, one 16-ft. and one 12-ft. frame.
Chin Coulee .....	S W. 1/4 25-9-19-4.....	Two 20-ft. pile spans.
Coulee .....	4/5-7-19-4.....	One 20-ft. pile span.

STREAM	LOCATION	SIZE AND CLASS OF BRIDGE
Coulee .....	33-7-13-4 .....	One 18-ft. pile span.
Coulee .....	N.E. 1-10-15-4 .....	One 20-ft pile span.
Creek .....	19/30-55-19-4 .....	One 20-ft. pile span.
Creek .....	S.E. 5-56-20-4 .....	One 16-ft. pile span
Creek .....	18-46-26-4 .....	Two bridges, one 16-ft. pile span each.
Creek .....	9/16-46-26-4 .....	Two bridges.
Creek .....	11/14-46-1-5 .....	One 17-ft. pile span.
Creek .....	16/17-46-25-4 .....	One 18-ft pile span.
Deep Creek .....	S W. 8-57-13-5 .....	One 24-ft. span on crib abutments.
Dry Creek .....	14/15-55-14-5 .....	One 22-ft crib span
Deadfish Creek .....	S. 6-24-13-4 .....	Two 20-ft pile spans.
Deadfish Creek .....	31/32-22-12-4 .....	Three 20-ft. pile spans.
Dog Rump Creek .....	S.W. 1/4 19-57-7-4 .....	Moving bridge.
Erskine Lake Creek .....	30/31-38-20-4 .....	One 16-ft pile span.
Flat Creek .....	In 31-66-19-4 .....	One 25-ft log span
Frog Creek .....	E. 7-67-12-4 .....	One 40-ft. bent span
Fish Creek .....	1-23-1-5 .....	One 150-ft. steel on concrete.
Goose Creek .....	S W 25-70-25-4 .....	Not stated.
Ghost Pine Creek .....	S.E. 15-35-24-4 .....	Two 20-ft. pile spans.
Heart River .....	7-78-16-5 .....	One 30-ft truss and one 26-ft., two 20-ft., one 16-ft., and one 12-ft
Hunting Creek .....	22/23-78-22-5 .....	Two 16-ft pile spans.
Irish Creek .....	14-54-4-4 .....	One 16-ft pile span
Irish Creek .....	1/2-54-4-4 .....	One 16-ft pile span
Irish Creek .....	7/18-54-4-4 .....	One 16-ft pile span
Iron Creek .....	N 31-43-10-4 .....	Two 18-ft pile spans
Iron Creek .....	25/26-44-12/13-4 .....	One 16-ft pile span.
Iron Creek .....	N W 29-45-13-4 .....	Two 20-ft pile spans
Iron Creek .....	17/18-46-13-4 .....	One 20-ft pile span
Ketchum Creek .....	W 18-4-5-4 .....	Two 20-ft. pile spans
Ksituan River .....	15-79-7-6 .....	One 40-ft truss and one 16-ft. pile span.
Lone Pine Creek .....	13/14-31-27-4 .....	Three 20-ft pile spans
Lone Pine Creek .....	W 30-31-27-4 .....	One 40-ft. timber truss
Lobstick River .....	33/34-53-9-5 .....	Six 20-ft pile spans
Lobstick River .....	N.E. 1/4 30-53-7-5 .....	One 20-ft. pile span
Lac Cardinal (South End) .....	8/17-83-24-5 .....	Five 18-ft pile spans.
Muskeg River .....	5/6-54-16-5 .....	One 60-ft. timber truss
Modeste Creek .....	20/29-49-5-5 .....	Two 20-ft. spans on piles.
Medicine River .....	N. 36-40-4-5 .....	Two 20-ft pile spans.
Manyberries Creek .....	34/35-4-7-4 .....	Two 20-ft pile spans.
Mosquito Creek .....	24-15-27-4 .....	One 60-ft steel span
Medicine River .....	28/29-42-4-5 .....	Two 16-ft and one 18-ft. pile spans
Nanton Creek .....	7/18-16-28-4 .....	Three 20-ft pile spans
North Heart River .....	In 20-81-19-5 .....	Three 16-ft pile spans.
Over Moose Creek .....	N W. 22-72-2-5 .....	Two 60-ft. round timber spans.
Over Narrows of Olivia Lake .....	W 19-47-11-4 .....	One 20-ft pile span
Olive Lake .....	14/15-38-20-4 .....	One 16-ft pile span
Pine Creek .....	S W 1/4 4-67-19-4 .....	Not stated.
Parflesh Creek .....	29-24-21-4 .....	One 20-ft pile span.
Paintearth Creek .....	33/34-38-13-4 .....	Two 20-ft. pile spans
Poison Creek .....	15-55-12-5 .....	One 16-ft crib span.
Prairie River .....	20/21-74-16-5 .....	Two bridges.
Peace Creek .....	4-73-6-5 .....	One 14-ft , one 16-ft. and one 20-ft spans.
Paddle River .....	29-57-8-5 .....	Three 20-ft round timber.
Paddle River .....	S. 16-57-7-5 .....	One 50-ft timber truss
Paddle River .....	25/26-57-8-5 .....	Four 20-ft. pile spans.
Paddle River .....	23/26-57-7-5 .....	Six 20-ft pile spans
Paddle River .....	29-56-8-5 .....	Two 20-ft pile spans
Peavine Ravine (two bridges) .....	23-83-21-5 .....	No. 1, one 18-ft., No. 2, two 18-ft. pile spans.
Peavine Creek .....	11/12-83-21-5 .....	Two 14-ft pile spans.
Paddle River .....	17-59-3-5 .....	Two 40-ft timber truss spans.

STREAM	LOCATION	SIZE AND CLASS OF BRIDGE
Paddle River .....	25/29-58-5-5.....	One 40-ft. timber truss and one 16-ft. pile spans.
Paddle River .....	31/36-58-5/6-5.....	One 40-ft. timber truss and one 16-ft. pile spans.
Paddle River .....	E 13-59-3-5.....	One 60-ft. timber truss and two 20-ft. pile spans.
Pine Creek .....	15/20-65-21-4.....	One 70-ft pile bridge.
Pine Creek .....	N.W. 1/4 10-65-22-4.....	One 22-ft. pile span.
Paintearth Creek .....	20/21-39-14-4.....	Three 20-ft. pile spans.
Paintearth Creek .....	S. 6-40-16-4.....	One 20-ft pile span.
Paintearth Creek .....	24-39-14-4.....	Three 20-ft pile spans.
Paintearth Creek .....	29/30-38-16-4.....	One 16-ft pile span.
Pipestone Creek .....	30/29-47-24-4.....	One 20-ft. and two 18-ft. spans.
Pipestone Creek .....	12-47-24-4.....	One 60-ft. timber truss and one 20-ft. span.
Pipestone Creek .....	8-47-23-4.....	One 50-ft timber truss on piles
Ravine .....	21/28-55-26-4.....	One 14-ft span on piles.
Red Willow Creek .....	11/14-40-18-4.....	Two 20-ft. pile spans.
Rat Creek .....	10-46-6-5.....	Twelve 14-ft. pile spans.
Spring Creek .....	23/24-23-15-4.....	One 18-ft frame span.
Sounding Creek .....	8/9-31-3-4.....	Two 16-ft pile spans
Sounding Creek .....	4/5-35-6-4.....	One 16-ft frame span
Shiningbank Creek .....	S E 25-56-15-5.....	One 24-ft. log span.
Swan River .....	7/8-72-9-5.....	One 25-ft. and two 20-ft. spans.
Salt Creek .....	N E 34-76-14-5.....	One 20-ft. pile span
South Fork of High River .....	14-17-2-5.....	Four 20-ft. pile spans
Sturgeon River .....	2/3-55-2-5.....	Three 20-ft. pile spans.
Spruce Creek .....	29/30-72-6-6.....	Two 20-ft. pile spans.
String Creek .....	11/14-53-15-4.....	Not stated.
Trail Creek .....	9/16-33-2-5.....	One 20-ft pile span.
Vermilion River .....	11-54-2-4.....	Four 20-ft pile spans
Vermilion River .....	2/3-52-3-4.....	One 16-ft pile span
Vermilion Creek .....	22/23-58-25-4.....	One 14-ft. span on piles.
Vermilion Creek .....	11/14-58-25-4.....	One 14-ft span on piles.
Vermilion Creek .....	26/27-58-25-4.....	One 14-ft. span on piles
Vermilion Creek .....	22/23-58-25-4.....	One 14-ft span on piles.
Vermilion River .....	21/22-53-10-4.....	Three 16-ft. pile spans.
Vermilion River .....	3/34-53/54-14-4.....	Four 18-ft. pile spans
Wabiscaw River .....	36-79-24-4.....	One 45-ft log bridge.
Willow Creek .....	13/14-28-17-4.....	Two 16-ft pile spans.
Willow Creek .....	In 28-49-27-4.....	One 18-ft pile span
Whitemud Creek .....	N 20-48-25-4.....	One 20-ft span on piles.
West Branch of Medicine River .....	22/23-41-4-5.....	Two 20-ft pile spans
Whitemud River .....	31-86-24-5.....	One 50-ft. timber truss on piles.
Wetaskiwin Creek .....	16-46-25-4.....	One 18-ft pile span.
Yelling Creek .....	12-60-8-4.....	Two 16-ft. pile spans.
Last Lake Creek .....	W 35-83-26-5.....	Not stated

## DEPARTMENT OF PUBLIC WORKS

## MAINTENANCE OF BRIDGES, 1920

Baptiste Creek	1/6-67-23/24-4
Bow River	10-21-21-4
Bow River	3-21-19-4
Branch of Lee Creek	16-2-26-4
Bull Horn Coulee in Blood Indian Reserve	3-26-4.
Beaupre Creek	21/22-26-5-5.
Beaver Dam Creek	2-29/30-3-5.
Bridge Creek	N 1/2 27-74-15-5
Bridge Creek	N.E. 13-75-15-5.
Bow River	In Indian Reserve South of Gleichen
Branch of Crowfoot Creek	N W 1/4 26-24-22-4.
Berry Creek	4-22-12-4.
Berry Creek	28-26-12-4
Berry Creek	12-25-13-4.
Bullpound Creek	S W 1/4 26-27-14-4
Berry Creek	11/14-24-13-4
Berry Creek	3/33-20/23-12-4
Between High River and Little Bow River	High River.
Blindman River	32/2-41/42-2-5
Blindman River	20/29-39-28-4.
Blindman River	21/28-40-1-5
Blindman River	7/18-41-1-5
Branch of Seven Persons River	23/26-10-7-4
Bearhead Creek	7/18-81-19-5.
Bear Creek	23-71-6-6
Bear Creek	10-81-19-5
Blindman River	32/2-41/42-2-5.
Battle River (Steel)	31/36-42-25/28-4
Battle River	E 1/2 4-43-25-4
Beaver River	10/15-62-2-4.
Beaver River	S E 25-62-6-4
Bow River	N E 1/4 10-11-19-4
Birch Creek	27/28-50-9-4
Beaverhills Creek	12/13-55-19-4
Battle River (Steel)	36/1-44/45-23-4
Creek into Athabasca River	N.W. 1/4 28-66-22-4.
Creek	N E. 1/4 28-66-19-4
Creek	N 2-69-23-4.
Creek into Bow River	26/27-25-4-5
Creek into Beaver Dam Creek	N E 29-26-3-5
Creek into Red Deer River	S E 1/4 10-29-20-4
Creek into Red Deer River	S W 10-29-20-4
Creek into Red Deer River	S E. 9-29-20-4
Creek into Red Deer River	S W 9-29-20-4
Creek into Red Deer River	S E 8-29-20-4
Creek into Red Deer River	N W 8-29-20-4
Creek into Red Deer River	N W 7-29-20-4
Carrot Creek	S E 30-53-13-5.
Creek	24/25-74-17-5
Crowfoot Creek	5-24-22-4
Coulee	10-35-1-5
Conjuring Creek	W 30-49-28-4
Creek	9/10-49-25-4
Conjuring Creek	25/36-49-27-4
Creek into Conjuring Creek	18-48-26-4.
Creek	52-50-4-5.
Creek	33-50-4-5
Creek	Bet. 23/26-40-27-4.
Coulee (Two bridges)	13/18-11-2/3-4.
Creek	28/29-7-25-4.
Creek	6-60-1-5.
Creek	W. 32-56-3-5.
Creek into Pine Creek	26/27-65-21-4.
Creek	W. 30-56-3-4.
Creek into Moose Lake	S W. 10-61-6-4.
Coulee	22-6-20-4.
Chin Coulee	S.E. 6-9-18-4.
Dogpound Creek	12/23-31-3-5.



Dogpound Creek .....	34/3-31/32-3-5.
Dogpound Creek .....	26/27-31-3-5.
Deep Creek .....	25/30-74-16/17-5.
East Prairie River .....	N W. $\frac{1}{4}$ 11-74-16-5.
Etzikom Coulee .....	13/14-5-9-4.
East End of Goose Lake .....	4-42-11-4.
Etzikom Coulee .....	10/11-5-14-4.
Fallen Timber Creek .....	33/4-30/31-5-5.
Fish Creek (Steel).....	4-23-1-5
Gull Creek .....	2/3-109-13-5.
Gull Creek .....	R L. 4-108-13-5.
Goose Creek .....	N W. 18-70-23-5.
Grand Valley Creek .....	24/25-26-5-5
Gull Lake Road .....	S.W. $\frac{1}{4}$ 25-40-27-4.
Hangstone Creek .....	Near Fort McMurray.
Heart River .....	24-76-18-5.
Highwood River .....	6-19-28-4.
Irish Creek .....	S 6-54-3-5.
Irrigation Ditch (Pothole Coulee) .....	28/33-4-23-4.
Island Creek .....	34-81-4-6
In Town of Athabasca of Muskeg Creek .....	17-66-22-4.
Irrigation Canal .....	6-10-17-4
Kipp Coulee .....	19/30-5-19-4.
Knee Creek .....	53-49-1-5
Knee Hills Creek .....	26/27-32-27-4.
Little Red Deer River .....	7-30-4-5.
Lesser Slave Lake .....	N 19-75-14-5
Little Sturgeon .....	19/20-63-6-5.
Little Bow River (Steel) .....	12/13-15-26-4.
Little Red Deer River (Steel) .....	N $\frac{1}{2}$ 32-34-2-5.
Lobstick Creek .....	26-39-5-5.
Long Lake Creek .....	26/27-56-5-4.
Muskeg Creek .....	20-66-22-4
Muskeg River .....	N.W. 10 54-17-5
Moose River .....	72-2-5.
Muchichi Creek .....	N.W. $\frac{1}{4}$ 11-29-20-4.
Muchichi Creek .....	11/14-29-20-4.
Muchichi Creek .....	S E. 14-29-20-4.
Muchichi Creek .....	S.W. 14-29-20-4.
Medicine River .....	7-36-1-5.
Manyberries Creek .....	S E. 15-6-5-4
Mosquito Creek .....	15-16-28-4
Mosquito Creek .....	5/32-15/16-27-4.
Mosquito Creek .....	28/29-15-27-4
Mosquito Creek .....	29/20-16-28-4
Mosquito Creek .....	2/15-16/17-29-4.
Mosquito Creek .....	21/22-16-28-4.
Mosquito Creek .....	W. 30-16-25-4.
Mosquito Creek .....	12-16-28-4
Mosquito Creek .....	12/13-16-28-4.
Mosquito Creek .....	34-15-27-4.
Mosquito Creek (Steel bridge) .....	7/8-15-26-4.
Moose Creek .....	N W. $\frac{1}{4}$ 26-56-5-4
Milk River .....	S E 8-2-13-4
Nose Creek .....	12-27-1-5.
North Branch of Crowfoot Creek .....	22/23-24-22-4.
Narrows of Shalkas Lake .....	22/27-56-14-4
Oldman River .....	5-5-26-4.
Over Spillway .....	7-19-28-4.
Oldman River .....	1/6-10-23/24-4.
Oxley Creek .....	7/8-14-28-4.
Oldman River .....	S.W. $\frac{1}{4}$ 30-7-29-4.
Oldman River (Steel) .....	26/35-10-20-4.
Pine Creek .....	26/27-65-21-4.
Pine Creek .....	6-66-20-4.
Pine Creek .....	W. 31-66-19-4
Pothole Coulee .....	26-5-22-4.
Paddle River .....	S. 16-57-7-5.
Paddle River .....	E. 25-56-9-5.
Parlby Creek .....	S.W. $\frac{1}{4}$ 29-40-23-4.
Piegan Creek .....	S.E. $\frac{1}{4}$ 24-7-7-4.

Paddle River .....	E. 13-59-3-5.
Pine Creek .....	34/35-58-19-4.
Pine Creek .....	22/27-65-21-4.
Pine Creek .....	S.E. 3-65-21-4.
Pothole Coulee .....	7/8-6-21-4.
Pipestone Creek .....	W. 7-47-23-4.
Pipestone Creek .....	E 8-47-23-4.
Pipestone Creek .....	S.W. 19-46-22-4.
Pipestone Creek .....	N.W. 26-46-23-4.
Pipestone Creek .....	2/3-47-23-4.
Pipestone Creek .....	5/6-46-23-4.
Red Deer River .....	13/14-2/3-1-4.
Rosebud River .....	S.E. 7-28-19-4.
Rosebud Creek .....	S.W. 28-28-19-4.
Rosebud River .....	22/23-30-29-4.
Red Deer River .....	17-31-4-5.
Red Deer River .....	5/32-36/37-28-4.
Red Deer River (Steel) .....	33-38-22-4.
Red Deer River .....	At Red Deer.
Snake Creek .....	30-2-24-4.
Smoke River .....	22/23-2-25-4.
Sounding Creek .....	9/10-35-4-4.
Sounding Creek .....	N.E. 36-34-5-4.
Sounding Creek .....	31-35-5-4.
South Heart River .....	25-75-17-5.
Sturgeon River .....	N.W. 2-55-1-5.
Seven Persons River .....	20/29-10-7-4.
Seven Persons River .....	28/29-10-7-4.
Sheep Creek .....	29-20-29-4.
South Burnt River .....	
Stony Creek .....	83-22-5.
Sucker Creek .....	23-58-20-4.
Sturgeon River .....	E. 22-55-22-4.
Small Creek .....	N.W. 31-58-6-4.
Six Mile Coulee .....	S.W. 11-8-21-4.
Stony Creek .....	N 22-50-8-4.
Tawatinaw River .....	In Town of Athabasca.
Trembling Creek .....	23-54-15-5.
Vermilion River .....	16/17-52-3-4.
Vermilion River .....	S.E. 6-51-8-4.
Willow Creek .....	S.E. 32-13-28-4.
Willow Creek .....	7-12-27-4.
Willow Creek .....	W. 33-11-27-4.
Whitemud Creek .....	32/33-50-25-4.
Wolf Creek .....	10-24-26-4.

BRIDGES CONSTRUCTED, RE-CONSTRUCTED AND REPAIRED BY  
THE DEPARTMENT IN 1920 IN ADMINISTRATION OF M.D.  
TRUST FUNDS

STREAM	LOCATION	SIZE AND CLASS OF BRIDGE
Buck Creek .....	3-47-6-5.	Repairs
Cow Creek .....	31/32-56-14-5	Repairs
Creek .....	N of N.E. 1/4 11-9-7-4	Grading to bridge
Coulee .....	E. 2-9-1-4	Four 18-ft. log spans
Modeste Creek .....	S 6-46-4-5	Constructing new bridges.
Rat Creek .....	10-46-6-5	Twelve 14-ft. spans
Sheep Creek .....	S.W. 2-20-3-5.	(Two bridges) repairs

## MAIN HIGHWAYS, 1920

Calgary to Edmonton.  
 Calgary to Banff.  
 Calgary to Medicine Hat.  
 Calgary to Macleod.  
 Walsh to Crow's Nest Pass.  
 Lethbridge to Coutts.  
 Lethbridge to Waterton Lakes.  
 Lethbridge to High River.  
 Airdrie to Alsask.  
 Lacombe to Compeer.  
 Wetaskiwin to Dayton.  
 Edmonton to Chauvin.  
 Edmonton to Lloydminster.  
 Edmonton to Jasper Park.  
 Edmonton to Athabasca.  
 Edmonton to Holmes Crossing.  
 Vegreville to Cold Lake.  
 St. Albert to Whitecourt.  
 Athabasca to Peace River.  
 Red Deer to Rocky Mountain House.  
 Peace River to Grande Prairie.  
 Macleod to International Boundary.

## ORDINARY ROADS, 1920

LOCATION	DESCRIPTION OF WORK
South of Youngstown.....	Grading road
North and South of Acadia Valley .....	Filling in sloughs.
North of Cereal .....	Improving road.
South of Excel .....	Grading road.
North and South of Oyen .....	Improvement of road
North of Youngstown .....	Grading and culverts
South of Scotfield .....	Improvement of road.
South of Chinook .....	Grading road
Bet. 5/6-30-2-4 .....	Opening road
North of Buffalo Ferry .....	Grading and culverts.
N. of 7 to 12-25-10-4 .....	Improvement of road.
Kitscoty north to Lea Park Ferry .....	Grading, filling holes and raising grade.
North of Sec. 11-54-3-4 .....	Grading road.
North of Lloydminster .....	Grading and culverts
North of Islay .....	Improvement of road
South of Islay .....	Improvement of road.
South of Kitscoty (West road) .....	
W 2 to 35-48/49-3-4 .....	Cutting down hills, filling sloughs.
North of Blackfoot .....	Grading road
E. 26 and 35-45-2-4 and E. 2 to 35-46-2-4 .....	Improvement of road
Athabasca to Calling Lake .....	Opening and grading road
Athabasca to Lac La Biche .....	Grading, filling and culverts.
E. 4 to 28-66-19-4 .....	Improvement of road.
Athabasca to Baptiste Lake .....	Grading, filling and culverts.
N. of 7 to 12-67-21-4 and N. 11 and 12-67-22-4 .....	Grading and culverts.
N. 12-67-24-4 .....	Repairing road.
Making road along Franklin Ave. at Ft McMurray .....	
Along W. side of Baptiste Lake .....	Grading and culverts.
Athabasca to Lake Wabiscaw .....	Opening road
E. 4 to 21-66-23-4 .....	Repairing road.
R. Lot 7 of H. B. Co. Reserve Tp. 108-13-5 .....	Opening road.
E. 23 to 35-66-22-4 and E. Tp. 67-22-4 .....	Grading, filling and culverts.
E. 5 to 32-67-21-4 and E. 5 and 8-68-21-4 .....	Grading and culverts.
East of Athabasca .....	Improvement of road.
E. Tp. 66-24-4 and E. 6 to 31-67-23-4 .....	Grading, filling and culverts.
N. 8-67-24-4 .....	Opening road.
Athabasca to Lesser Slave Lake (East and North of River.) .....	Improvement of road

LOCATION	DESCRIPTION OF WORK
E 6 to 31-67-21-4 .....	Grading and culverts.
At Smith Portage Bet Ft. Fitzgerald and Ft. Smith.....	Grading, filling and culverts.
N. of 7 to 12-66-22/23-4 .....	Improvement of road.
Surveyed road through Secs 2, 3, 9 and 16 Tp. 67-23-4.....	Opening road.
N. 19-66-22-4.....	Grading road.
N. 31, 32 and 33-67-24-4 .....	Repairing road.
E 23-66-23-4 .....	Opening road
South of Tp. 66-21-4 and S. of 1 to 5-66-22-4 .....	Improvement of road.
E 2 to 35-65-22-4 .....	Improvement of road.
E 5 to 17-66-23-4 .....	Repairing road.
Ft. Vermilion to Boyer Settlement .....	Improvement of road.
Victoria to Lac La Biche Trail .....	Repairing road.
N and S of Charron E. 13 and 24-68-17-4 .....	Grading and culverts.
W and N. of Venice bet. Egg Lake and Long Lake.....	Opening road.
E. 8-60-17-4 .....	Putting in culvert.
N. 18-60-11-4 .....	Putting in culvert.
E. 26-59-12-4 to E. 35-60-12-4 .....	Improvement of road.
N. 31 to 34-59-11-4 and N. Tp. 59-12-4.....	Grading road.
E. 4 to 33-58-10-4 and E. 4 to 21-59-10-4 .....	Grading road
North and South of Therien .....	Grading and culverts.
St. Paul de Metis to Brosseau .....	Improvement of road
E. 3 to 34-59/60-10-4 .....	Grading road
Bet. 20/21-57-10-4 .....	Grading road.
E and W. through 8-59-9-4 .....	Opening road.
E. 5 to 32-61-9-4 .....	Opening road
E. Tps. 61 and 62-11-4.....	Improvement of road.
Lac La Biche to Plamondon .....	Grading, filling and culverts
Around East end of Lac La Biche .....	Repairing road.
E. 3 to 34-61-11-4.....	Improvement of road
N.E. of Plamondon .....	Grading and culverts.
South of Plamondon.....	Grading and culverts.
Lac La Biche to Athabasca.....	Improvement of road.
N. 27-67-16-4 .....	Improvement of road.
North and South of Smoky Lake .....	Grading and culverts.
Bet 29/30-56-13-4 .....	Covering corduroy.
E. 22 and 27-56-10-4 .....	Grading road.
N. 8-60-17-4 .....	Opening road.
N. and S. through Tp 57-10-4 .....	Improvement of road
E. 6 to 31-59-9-4 .....	Improvement of road
E. 27 and 34-58-11-4 .....	Putting in culverts.
N 23-60-10-4 .....	Grading and culverts.
E. 4 and 9-60-11-4 .....	Grading and culverts
E. 4-56-12-4 .....	Grading and culverts
E. 3 to 34-61-9-4 .....	Grading and culverts
N. 11-61-9-4 .....	Improvement of road.
E. 29-58-10-4 .....	Improvement of road.
Normandeau to Lac La Biche Trail .....	Culverts
E. 5-60-10-4 .....	Opening road.
Cluny to Milo .....	Grading and culverts.
E. 4 to 33-20-14-4 .....	Grading road.
N. 9 and 10-21-14-4 .....	Opening road.
North of Millicent to Red Deer River .....	Grading, filling and culverts.
Bassano to Brooks .....	Grading, filling and culverts.
N. 19 to 24-20-13-4 and N. 23 and 24-20-14-4 .....	Opening road.
N. Tp. 22-15, 16 and 17-4 .....	Grading, filling and culverts
N. 7 to 11-20-20-4 .....	Grading road.
S.W. of Brooks to Eyremore Ferry .....	Grading, filling and culverts.
E. 2-19-14-4 .....	Improvement of road.
N. 11-19-14-4 .....	Improvement of road.
Drumheller to Rosedale .....	Grading, filling and culverts.
North of Cassils .....	Opening and grading road.
West of Delacour .....	Improvement of road.
Bowness Road .....	Improvement of road.
North Morley Trail to Sanatorium at Keith.....	Opening road and putting in culverts.
Mellowdale to Holmes Crossing .....	Improvement of road
E. 9 to 33-62-6-5 .....	Opening and grading road.
In Tp. 62-5-5 leading to Ferry .....	Opening and grading road.

LOCATION	DESCRIPTION OF WORK
Edson Trail .....	Improvement of road
N 15, 16 and 17-61-3-5 .....	Improvement of road.
N 26 to 30-70-10-6 and N 25 to 30-70-11-6 .....	Opening road
N and W of Dusseldorf .....	Opening road.
E. 28-70-12-6 .....	Opening road
Through Sec 23 and E 27 and 34-70-8-6 .....	Opening road.
N 34-70-8-6 .....	Opening road.
South of Coronation .....	Grading, filling and culverts.
North of Monitor (West road) .....	Grading, filling and culverts.
North of Richdale .....	Grading road.
North of Consort .....	Grading and culverts
E. 30 and 31-36-6-4 .....	Opening road.
Through Tps 2 and 3-28 and 29-4 .....	Repairing road and culverts.
Cardston to International Boundary .....	Improvement of road
Cardston to Hill Spring .....	Grading and culverts
Cardston to Glenwoodville .....	Opening and grading road.
N Tp. 27-5-5 .....	Grading road.
Cochrane to Dog Pound and Cremona .....	Grading and filling road
West of Airdrie .....	Grading and culverts
E 33-25-3-5 .....	Improvement of road
N Tp 25-2/3-5 .....	Improvement of road.
E 2 to 35-26-3-5 .....	Grading and filling road
North of Impey .....	Grading and filling road.
Cochrane to Lochend and north .....	Grading, filling and culverts
E. Tps 27 and 28-5-5 .....	Grading, filling and culverts
From Calgary-Morleyville trail through the Grand Valley .....	Repairing road and putting in culverts.
Ohaton to Meeting Creek and south .....	Grading, filling and culverts
Camrose to Duhamel .....	Repairing road
South of Camrose to Battle River .....	Repairing road
East and west of Camrose .....	Repairing road
Camrose to Round Hill .....	Repairing road
North of Camrose .....	Repairing road.
N. 36-45-21-4 .....	Grading road.
E 2 to 35-43-17-4 .....	Opening road
Bawlf to Ferry Point and Donalda .....	Grading road
South of Meeting Creek .....	Grading road
South of Daysland .....	Improvement of road
N 19 to 24-50-20-4 .....	Improvement of road
N 13 and 14-49-21-4 .....	Improvement of road
E 4 to 21-49-21-4 .....	Grading road.
Bashaw to Donalda and east .....	Improvement of road
North-west of Bashaw .....	Improvement of road
E 31-30-4-5 and E. 6-31-4-5 .....	Opening road.
N Tp. 30-5-5 .....	Opening road
N. of Tp 31 to Fallen Timber Creek .....	Grading and filling road
South of Sundre .....	Grading, filling and culverts.
E. 4 to 33-51-22-4 .....	Improvement of road.
E 4-53-22-4 .....	Improvement of road.
East of Edmonton N of Tp. 52 .....	Putting in culverts.
N. Tp 50-20. 21 and 22-4 .....	Grading road.
"Y" Road to West Salisbury and east .....	Putting in culverts
Rosevear to Ferry .....	Grading road
South and east of Wolf Creek .....	Grading road.
N 32-53-13-5 .....	Improvement of road.
E 4 to 33-53-13-5 .....	Improvement of road.
West of Carrot Creek .....	Improvement of road.
N 20 and 21-53-13-4 .....	Grading road
North and east of Edson .....	Grading road.
West of Tollerton .....	Grading road
North of Niton .....	Grading and filling
E. 11-51-26-5 .....	Opening road.
E. 4 to 21-54-17-5 .....	Grading road.
N. 28-53-17-5 .....	Clearing and grading road.
Shining Bank south and west .....	Grading road.
E. of S.E. 3-54-16-5 .....	Grading road.
Rocky Mountain House to Horburg .....	Clearing and grading road.
N. 19 to 23-53-16-5 .....	Opening road.
Edson to Sundance and Marlboro .....	Improvement of road.
Edson to McLeod Valley .....	Improvement of road.

LOCATION	DESCRIPTION OF WORK
North and south of Falher .....	Grading and filling.
E. 5 to 32-77 and 78-21-5.....	Grading and filling.
North Wabiskaw Lake to South Wabiskaw Lake .....	Improvement of road.
N. 19 to 24-78-21 and 22-5 .....	Grading road.
Along White Fish Lake .....	Improvement of road.
Lesser Slave Lake to Spirit River.....	Grading, filling and culverts.
North and south of Donnelly.....	Grading, filling and culverts.
E. 5-78-20-5.....	Opening road.
E. 2-78-21-5.....	Opening road.
Big Prairie to Prairie River Settlement .....	Improvement of road.
Lesser Slave Lake to Sturgeon Lake .....	Improvement of road.
N. 32-76-21-5 .....	Grading approaches to bridge.
Sawridge to Lake Wabiska .....	Improvement of road.
Lesser Slave Lake to Athabasca ..	Improvement of road.
Grouard to Sawridge.....	Improvement of road.
Carseland south and east to Steel Bridge .....	Grading, filling and culverts.
South of Gleichen through Blackfoot I.R. ....	Grading, filling and culverts.
E. 4 to 33-23-22-4 and E. 3 to 34-24-22-4 .....	Grading, filling and culverts.
Strathmore to Hussar .....	Grading, filling and culverts.
E. 15 to 34-22-22-4 and E. 2 to 35-23 /24-22-4.....	Improvement of road.
North of Gleichen .....	Repairing road.
Rumsey to Drumheller .....	Grading, filling and culverts.
Drumheller west, north of river.....	Grading, filling and culverts.
South-east of Delia .....	Grading road.
East of Dorothy .....	Grading road.
West of Stoppington .....	Grading road.
E. 8-31-18-4 .....	Improvement of road.
N. 7, 8 and 9-31-18-4.....	Improvement of road.
Innisfail W. to Clearwater River .....	Grading, filling and culverts.
East of Innisfail .....	Grading, filling and culverts.
N. 23 and 24-35-4-5 .....	Opening road.
E. 4 to 33-36-23-4 .....	Grading and culverts.
E. 4 to 33-36-4-5 .....	Improvement of road.
E. 11-36-3-5 .....	Improvement of road.
E. 2 and 11-37-6-5 .....	Improvement of road.
E. 2 and 11-37-5-5 .....	Improvement of road.
E. 17 and 20-35-2-5 .....	Improvement of road.
E. 15-11-24-4.....	Grading road.
East of Carmangay .....	Grading and culverts.
N. 17-16-22-4 .....	Opening road.
N. 7 to 10-16-22-4.....	Opening road.
N. Tp. 15-22-4 .....	Opening road.
E. 18 and 19-15-22-4 .....	Opening road.
E. 5 to 32-18-22-4 .....	Improvement of road.
N. 10 and 11-15-23-4 .....	Improvement of road.
E. Tp. 14-24-4 .....	Opening road.
E. 3 to 34-16/17-19-4 .....	Improvement of road.
N. Tp. 16-19 and 20-4 .....	Improvement of road.
E. 2 to 35-12-21-4 .....	Improvement of road.
West of Rochfort .....	Putting in culverts.
E. 34-54-7-5.....	Clearing and grading.
East of Greencourt .....	Grading road.
North and south of Little Paddle .....	Opening road.
North of Entwistle .....	Improvement of road.
East of Sangudo .....	Improvement of road.
South of Sangudo (Range Line) .....	Improvement of road.
E. 29 and 32-53-10-5 .....	Opening road.
North of Junkins .....	Grading road.
Through Tps. 59/60-9/10-5 north and south of Ferry over Athabasca River (Christmas Creek Road) .....	Clearing, grading and culverts.
Lac Ste. Anne to Entwistle .....	Repairing road.
N. 20 and 21-56-7-5 .....	Opening road.
E. 33-53-10-5 .....	Opening road.
North of Rochfort .....	Grading and culverts.
East of Peavine .....	Improvement of road.
Lac Ste. Anne across Narrows to Glenevis.....	Improvement of road.
East of Glenevis to Ferry over Sandy Lake ..	Improvement of road.

LOCATION	DESCRIPTION OF WORK
E. 1, 12 and 13-53-7-5 .....	Grading road.
North and South of Darwell (Range Line) .....	Grading road.
South of Cherrhill .....	Grading and filling.
North of Cherrhill .....	Grading and filling.
White Whale Lake to Lac Ste. Anne .....	Improvement of road.
North from Alberta Beach .....	Grading approaches to bridge.
North of Lonira .....	Opening road.
E. 36-58-11-5 .....	Opening road.
East and west of Saron .....	Grading, filling and culverts.
West of Leduc .....	Grading, filling and culverts.
East of Leduc .....	Grading, filling and culverts.
East of Millet .....	Grading and culverts.
East of Tp 50-26-4 .....	Grading and culverts.
E. 24-48-24-4 .....	Improvement of road.
Through 31 and S. 32 and 33-47-26-4 .....	Grading road.
E. 11-50-1-5 .....	Grading road.
Millet to Bonnie Glen .....	Repairing road.
N. 19, 20, 21 and 22-48-25-4 .....	Grading and filling.
N. 7 and 12-49-22-4 .....	Grading and filling.
E. 17 and 20-49-22-4 .....	Grading and filling.
E. 3 and 10-49-22-4 .....	Opening road.
North of Buford .....	Repairing road.
North Tp 50-24-4 .....	Repairing road.
E. 26-50-26-4 .....	Repairing road.
E. Tp. 49-26-4 .....	Improvement of road.
N. 9 to 12-48-25-4 .....	Grading road.
N. 7 to 12-49-1-5 .....	Grading road.
East and west of Glidehurst .....	Grading road.
E. 24-50-27-4 .....	Opening road.
Pokehasset north to Ferry .....	Improvement of road.
E. 4 to 28-50-1-5 .....	Opening road.
North-east of Mirror .....	Grading and filling.
N 20-41-3-5 .....	Opening road.
E. 6 to 31-41-2-5 .....	Improvement of road.
West of Lacombe .....	Grading, filling and culverts.
North of Tees .....	Grading road.
East of Clive .....	Grading road.
E. 11-40-22-4 .....	Improvement of road.
North of Rocky Mountain House (east of River) .....	Opening road.
N 17-39-26-4 .....	Repairing road.
N. 19-9-10-4 .....	Repairing road.
N. 7 to 12-9-10-4 .....	Repairing road.
N. 12-8-9-4 .....	Grading road.
N 21-8-9-4 .....	Repairing road.
N. and S. through Centre Tp. 9-3, 4, 5 and 6-4 .....	Grading and filling.
West of Manyberries .....	Grading and filling.
Medicine Hat to Cypress Hill .....	Grading and filling.
South of Seven Persons .....	Grading, filling and culverts.
South of Walsh (West Road) .....	Grading road.
E. 6-8-9-4 .....	Grading and culverts.
Walsh to Graburn .....	Grading and culverts.
Macleod to Standoff .....	Grading, filling and culverts.
North of Macleod .....	Repairing road.
N. 31, 32 and 33-15-28-4 .....	Repairing road.
On 26-15-29-4 .....	Repairing road.
Calgary to Priddis .....	Grading and filling road.
E. 28 and 33-22-1-5 .....	Improvement of road.
West of Metook .....	Grading road.
E. of 2 and 11-33-2-5 .....	Repairing road.
E. 3-33-7-5 .....	Opening road.
N. 11 and 12-33-7-5 .....	Grading road.
N. 21 and 22-33-7-5 .....	Grading road.
E. 18 and 19-33-6-5 .....	Grading road.
N. 22-34-5-5 .....	Opening road.
E. 16-32-2-5 .....	Improvement of road.
N. 34-1-5 .....	Grading and culverts.
East of Sundre .....	Grading road.
E. 25-33-6-5 .....	Grading road.

LOCATION	DESCRIPTION OF WORK
E. 8-34-5-5 .....	Opening road.
E. 3-33-28-4 .....	Grading road.
West of Bowden .....	Grading road.
N. 15-34-22-4 .....	Grading and culverts
E. 25-34-24-4 .....	Grading and culverts.
N. 23 and 24-34-24-4 .....	Grading road
E. 17 to 22-33-23-4 and E. 5 to 32-34-23-4 .....	Grading and culverts
Huxley to Three Hills .....	Grading and culverts
N. 7 to 12-33-28-4 and N. 12-33-29-4 .....	Improvement of road
N. Tp. 34-5/6-5 .....	Improvement of road
E. 2 to 34-33-5-5 .....	Improvement of road
Pincher Creek to Oil Fields .....	Grading, filling and culverts
Pincher Creek to Pincher Station .....	Grading, filling and culverts.
Hobbema to Battle River .....	Grading road
West of Ponoka .....	Grading road
East of Ponoka .....	Grading road
N. 20-42-25-4 .....	Improvement of road
East and West of Wittenberg .....	Improvement of road
S. Tp. 42-22-4 .....	Grading road
East and west of Rimbey .....	Grading, filling and culverts
E. 36-44-3-5 .....	Grading road
N. 9 and 10-59-1-5 .....	Improvement of road
Rosington to Lunnford .....	Dragging road
N. Tp. 57-1-5 .....	Grading road
East and west of Dusseldorf .....	Grading road
Through 20 and 21-59-2-5 .....	Opening road
E. Tp. 60 and 61-2-5 .....	Improvement of road
Through 35 and 36-59-25-4 .....	Grading road
East and west of Delney .....	Grading road
Dunstable to Lawton .....	Grading and culverts
East and west of Vimy .....	Grading and culverts
East of Dunstable .....	Grading and culverts
East of Lunnford .....	Grading and culverts
East and west of Shoal Creek .....	Improvement of road
Leading to Honda .....	Opening road
E. 12-59-1-5 .....	Grading road.
Fawcett to Ferry Site .....	Grading approaches to ferry
E. 9-58-27-4 .....	Improvement of road
E. 4, 9, 16 and 21-58-5-5 .....	Improvement of road
Ballantine to Mosside .....	Improvement of road
N. 12-56-2-5 .....	Grading road
N. 21 and 22-60-2-5 .....	Grubbing out road
E. Tp. 74-23-5 .....	Opening road.
Cache 1 to Blueberry Mountain .....	Clearing, grubbing and grading road.
Peace River to Shaftesbury .....	Improvement of road
North and west of Bezanson .....	Improvement of road.
N. 11-72-7-6 .....	Opening road
West of Grande Prairie .....	Grading, filling and culverts
E. 15-78-22-5 .....	Opening road
West of Flyingshot Lake Settlement .....	Putting in culverts.
Pats Creek Road .....	Opening road.
Between the Heart and Smoky Rivers .....	Grading hill
N. 33 and 34-81-4-6 .....	Opening road
Hythe to B. C. Boundary .....	Improvement of road.
Through North Vermilion Settlement to Ferry .....	Grading hill
Through 31-83-22-5 .....	Opening road.
E. Tp. 71-6-6 .....	Opening road.
Rocky Mountain House to Chicken Creek .....	Improvement of road.
Rocky Mountain House to Leslieville .....	Improvement of road
N. 8-39-5-5 .....	Improvement of road
South of Leslieville .....	Grading road.
Rocky Mountain House to Dovercourt .....	Grading road.
South of Hespero .....	Improvement of road.
West of Kootuk .....	Improvement of road
West of Evarts .....	Repairing road
E. 26 and 35-37-1-5 .....	Opening road
E. 4 to 16-38-26-4 .....	Opening road.
N. 8-38-22-4 .....	Grading road.
E. 25 and 36-37-25-4 .....	Opening road.



LOCATION	DESCRIPTION OF WORK
E. 20-38-23-4	Grading road.
On 33-38-22-4	Grading approaches to bridge
Through 1, S of 2-23-5-5	Improvement of road.
North of Cadogan	Opening road
E 12, 13 and 24-40-7-4	Grading and culverts.
E 14 and 23 and through 25-42-10-4	Cutting and filling.
North of Peckham	Grading road
N 19-39-9-4	Grading road
N 9 and 10-21-8-4	Improvement of road
E 14-21-8-4	Improvement of road
N 13-17-8-4	Improvement of road
N. 7-16-8-4	Improvement of road
North of Suffield to Jenner Ferry	Grading and filling road
N 8 and 9-13-3-4	Improvement of road
Leading into Irvine from the north	Grading, filling and culverts
N 19-18-9-4 and N 23 and 24-18-10-4	Grading road
E 24-18-10-4	Raising grade and repairing culverts
South of Alderson	Grading road
Moose Lake to Frog Lake	Grading, filling and culverts.
N 22, 23 and 24-55-4-4	Improvement of road
E 25-58-9-4	Improvement of road
E 36-61-5-4 and E 1-62-5-4	Improvement of road.
N 4-62-5-4	Opening road.
E 24, 25 and 36-56-3-4	Grading and filling road
E 5 to 32-60 and 61-8-4	Grading and filling road
Through 30-55-2-4 and 25-55-3-4	Repairing road.
E 23 to 35-55-4-4	Grading road
N Tp 58-8-4	Grading road
Omion Lake to Frog Lake	Grading and culverts
N 32, 33 and 34-54-2-4	Grading road
Through 15, 21, 28 and 32-58-5-4	Opening road
Frog Lake to Beaver Crossing and Cold Lake	Grading, filling and culverts.
Frog Lake south to Lea Park Ferry	Grading and filling
Elk Point to Ferry Crossing	Brushing and grading.
N 24-57-8-4	Repairing road.
E 23, 26 and 35-54-3-4	Grading and filling road
In N E 11-57-6-4	Grading and filling road.
E 23-58-9-4	Repairing road
Elk Point to St Paul de Metis	Grading and filling.
Sec 22-55-4-4 and from 4 to 31-57-4-4	Grading and culverts and grading approach to ferry.
North of Elk Point (Range Line)	Grading, filling and culverts
E 20-57-6-4	Improvement of road.
Through centre 6-57-7-4	Opening road.
N 31-56-7-4	Repairing road
Elk Point to St Paul	Grading and culverts
N 34, 35 and 36-62-2-4	Opening road.
E. 26-56-5-4	Grading road.
E 26-60-6-4	Grading road.
N 24-61-6-4	Grading and culvert.
In 11-58-8-4	Opening road
W 9 and 16-57-7-4	Opening road
E 26-56-4-4	Grading road.
Rife to Cold Lake	Grading and culverts
On 9 and 10-37-17-4	Brushing and grading
Erskine to Buffalo Lake	Grading and culverts.
N 7-34-16-4	Opening road.
E 7-34-16-4	Opening road.
East and north of Stettler	Grading and culverts.
North of Stettler	Grading and culverts.
Stettler to Buffalo Lake	Putting in culverts.
N 31 and 32-34-17-4	Opening road.
E. 32-34-17-4	Opening road.
E 2 and 11-37-14-4	Grading road
N. 23-37-14-4	Repairing road.
N. 36-36-20-4	Repairing road.
South of Fenn	Grading and culverts.
On 29-41-17-4	Opening road
Big Valley to Scollard and Rumsey	Grading, filling and culverts.

LOCATION	DESCRIPTION OF WORK
E. 14-38-19-4	Opening road.
N. 7, 8 and 11-40-16-4	Improvement of road
South of Castor	Grading and filling.
E. 9-41-19-4	Grading road.
Duffield south to Genesee Ferry	Grading, filling and culverts.
N. 34 and 35-51-26-4	Improvement of road.
N. 12-51-1-5	Improvement of road.
South of Entwistle	Grading and culverts.
South of Evansburg (Range Line)	Clearing road
N. 7 to 12-48-15-4	Improvement of road.
North of Viking	Repairing road.
N. 19 and 20-46-12-4	Improvement of road
N. 9 and 10-47-14-4	Improvement of road.
N. Tp. 46-14-4	Grading road.
E. 4-41-12-4	Opening road.
South of Sedgewick	Grading and filling.
South of Loughheed	Grading and filling.
South of Killam	Grading and filling.
N. 14-42-11-4	Repairing road
N. 9-40-12-4	Repairing road.
North of Steel Bridge at Lorraine	Repairing road.
E. 1-46-14-4	Grading road
E. 4 to 21-40-12-4	Opening road.
N. 32-47-14-4	Opening road.
E. 22-48-13-4	Repairing road.
N. Tp. 43-14/15-4	Improvement of road.
N. 23-47-14-4	Repairing road.
E. 15 and 22-47-14-4	Opening road
E. 21-44-12-4	Improvement of road.
N. 21 and 22-43-12-4	Improvement of road.
North of Loughheed	Repairing road.
South of Bruce	Repairing road.
East and west of Fedorah	Grading, filling and culverts.
Warspite to Waskatinau and west	Grading, filling and culverts.
E. 15 and 22-65-22-4	Grading and culverts.
Athabasca to Lac la Biche	Grading, filling and culverts.
Victoria to Ft. Saskatchewan	Grading, filling and culverts.
N. 32-57-22-4	Grading road.
N. 33-57-22-4	Grading road.
E. 18 and 31-59-18-4	Grading road.
North of Lobstick Settlement	Grading down hill.
S. 2-59-18-4	Repairing road
North of Battenburg	Grading and filling.
N. Tp. 56-22 and 23-4 (Landing Trail East)	Grading and filling.
E. and W. through centre 31-57-22-4	Opening road.
E. Tp. 65-23-4	Grading and filling
South of Radway	Grading road
N 7, 8 and 9-58-20-4 and N. 11 and 12-58-21-4	Grading road.
East and west of Colinton	Grading and filling.
Through 24, 26, 27 and 34-63-22-4 and through 3 and 10-64-22-4	Opening road.
West of Lewiston (Perryvale P.O.)	Improvement of road.
South of Newbrook	Opening road.
N. 5-61-19-4	Opening road.
East of Newbrook	Opening road.
East of Abee	Grading road.
East and west of Byron	Grading road.
E. 1 and 12-65-24-4	Improvement of road.
West of Meanook	Improvement of road.
North of Stocks	Improvement of road.
North and south of Bon Accord	Grading and filling.
E. 2 to 14-60-22-4	Repairing road.
Through 17-63-23-4	Opening road
South of Abee	Opening road.
E. 12-65-22-4	Grading and filling.
North of Lewiston (Perryvale P.O.)	Opening road
E. 6 to 31-60-23-4	Grading and filling.
N. 19-60-23-4	Opening road.
E. 11-58-24-4	Repairing road.

LOCATION	DESCRIPTION OF WORK
Namoo to Vollmer and west .....	Grading and filling.
E. 3 and 10-55-26-4 .....	Repairing road.
East of Seymore .....	Grading road.
N. 31 and 32-58-24-4 .....	Opening road.
East and west of Busby .....	Grading, filling and culverts.
E. 26-57-26-4 .....	Repairing road.
N. 20-58-25-4 .....	Repairing road.
E. 33-53-26-4 .....	Repairing road.
Surveyed road N. 1 and 2-57-26-4 .....	Opening road.
Along N. bank of Sturgeon River east of St. Albert .....	Grading and filling.
E. 7-57-24-4 .....	Improvement of road.
E. 23-58-25-4 .....	Improvement of road.
South of Vimy .....	Repairing road.
N. 35-57-25-4 .....	Repairing road.
E. 5 to 32-56-26-4 .....	Grading road.
E. 21-57-26-4 .....	Repairing road.
N. 34-56-25-4 .....	Repairing road.
N. 36-54-26-4 .....	Repairing road.
Vimy to Waugh .....	Grading, filling and culverts.
N. 10 and 11-9-12-4 .....	Grading and filling.
N. 35-7-12-4 .....	Improvement of road.
E. 19-9-12-4 .....	Improvement of road.
E. 10-9-12-4 .....	Improvement of road.
Taber, north to bridge over Oldman River .....	Grading, filling and culverts.
South of Bow Island .....	Grading road.
South of Burdett .....	Grading road.
North and south of Grassy Lake .....	Grading and culverts.
E. 2 to 35-10-13-4 .....	Putting in culverts.
South of Purple Springs .....	Putting in culverts.
E. 7-10-14-4 .....	Putting in culverts.
E. 1 to 24-56-7-4 .....	Improvement of roads.
South of Minburn .....	Grading and filling.
North of Innisfree .....	Grading, filling and culverts.
South of Mannville .....	Grading road.
North of Mannville .....	Grading, filling and culverts.
South of Innisfree .....	Improvement of road.
North of Vermilion .....	Grading, filling and culverts.
On 30-49-6-4 .....	Grading and culvert.
South of Vermilion .....	Grading, filling and culverts.
E. 13-51-8-4 .....	Grading and culverts.
N. Tp. 55-10/11-4 .....	Improvement of road.
E. 34-54-11-4 .....	Improvement of road.
E. 13 and 24-53-10-4 .....	Improvement of road.
South of Mundare .....	Grading road.
N. 7-52-16-4 .....	Grading road.
E. 25-50-20-4 .....	Grading and filling.
Chipman to Tofield .....	Grading and filling.
N. 19 to 22-49-15-4 .....	Grading road.
E. 7-49-16-4 .....	Improvement of road.
E. 5-49-14-4 .....	Grading and culverts.
N. 31-52-18-4 .....	Opening road.
North of Vegreville .....	Repairing road.
East of Mundare .....	Grading and culverts.
Mundare to Pakan .....	Grading road.
E. 29 and 32-49-19-4 .....	Grading road.
N. and S. through centre Tps. 49, 50 and 51- 15-4 .....	Putting in culverts.
North of Chipman .....	Grading and culverts.
Along river at Ft. Saskatchewan .....	Opening road.
North of Bruderheim .....	Repairing road.
Pakan to Andrew .....	Grading, filling and culverts.
Lamont to Andrew and east .....	Grading, filling and culverts.
E. 11-54-21-4 .....	Grading road.
East of Ft. Saskatchewan .....	Repairing road.
E. 20-56-19-4 .....	Repairing road.
N. 12-55-22-4 .....	Grading and filling.
E. 6, 7 and 18-56-19-4 .....	Grading and filling.
E. 7-55-20-4 .....	Grading and filling.
E. 8-58-16-4 .....	Grading and filling.

LOCATION	DESCRIPTION OF WORK
N. 34-55-18-4	Grading and culverts.
North of Chauvin (West Road)	Grading road
South of Chauvin	Grading, filling and culverts
N. 35-43-4-4	Improvement of road
E 5 to 20-5-16-4	Grading and filling
East of Warner	Grading and filling.
N. 36-3-16-4	Repairing road.
E 2 and 11-4-16-4	Repairing road.
Foremost to Legend (south of railway)	Opening road
South of Foremost	Grading, filling and culverts.
Desjarlais south to Vegreville	Repairing road
N. 31, 32 and 33-56-15-4	Repairing road
E 19, 30 and 31-56-15-4	Grading road.
Pakan to Smoky Lake and north	Grading, filling and culverts
South of Shandro	Grading and filling
E 4-56-14-4	Grading and filling
E 34-59-15-4	Grading and filling
E 2-59-15-4	Grading and filling
N 35-58-15-4	Improvement of road
North of Shandro	Improvement of road
South of Veillette	Grading road.
E 27 and 34-56-14-4	Grading road
E 3-54-12-4	Grading road
Through 1-59-14-4 (surveyed road)	Opening road
Wetaskiwin west to Buck Lake	Grading, filling and culverts
West of Bonnie Glen Road around north end of Buck Lake	Grading, filling and culverts
Millet to Bonnie Glen	Repairing road
Through 13-46-22-4 (surveyed road)	Opening road
E 6 to 31-45-27-4	Dragging road
N 31 and 32-45-27-4 and N 35-36-45-28-4	Dragging road.
E 4 and 9-46-27-4	Dragging road
West of Hayhurst	Grading road
E 3 and 10-46-26-4	Dragging road
Wetaskiwin N W to Sec 30-46-25-4	Dragging road
North-east of Brightview	Dragging road.
N Tp 44-2-3-5	Grading and filling
N and E 2 and E 10-47-3-5	Grading and filling
E. 29-47-3-5	Opening road
On 10-44-22-4	Grading road.
E 36-46-26-4	Grading road
E 6 and 7-47-25-4	Grading road.
N 7-47-25-4	Repairing road
North and south of Knob Hill	Grading and filling

WORK PERFORMED IN 1920 BY THE DEPARTMENT IN  
ADMINISTRATION OF M.D. TRUST FUNDS.

North Tp. 24-5-4. Grading and culverts.  
 South of Cappon Grading and culverts.  
 East 33-25-5-4. Grading and culverts.  
 East 23-24-5-4. Grading and culverts.  
 East 5 to 32-24, 25 and 26-7-4. Grading, filling and culverts.  
 East 20, 29 and 32-25-8-4. Opening road.  
 South 1-67-20-4. Grading road  
 North 25-66-22-4. Improvement of road.  
 East 5-68-21-4. Improvement of road.  
 East 24, 25 and 36-67-22-4. Grading road.  
 East 6 to 18-67-21-4. Grading road.  
 Athabasca-Lesser Slave Lake Trail. Repairing road.  
 North 34 and 35-67-23-4. Improvement of road.  
 Athabasca to Calling Lake. Grading, filling and culverts.  
 North 28-67-22-4. Opening road.  
 East 7, 8 and 19-67-22-4. Grading and culverts.  
 R. Lots 12 and 13-108-13-5. Improvement of road  
 Fort Vermilion to North Vermilion. Improvement of road.  
 East 1 and 12-63-11-4. Repairing road.

Normandeau to Lac La Biche Trail. Grading, filling and culverts.  
 North 21-63-12-4. Improvement of road.  
 East 1 and 12-65-14-4. Improvement of road.  
 Lac La Biche to Grandin. Repairing road.  
 East 26-66-16-4. Grading road.  
 Lac La Biche to Plamondon. Grading road.  
 North 10-67-15-4. Opening road.  
 North Tp. 66-14/15-4. Opening road.  
 South of Plamondon. Improvement of road.  
 North East of Plamondon. Improvement of road.  
 Lac La Biche to Athabasca. Repairing road.  
 Around Big Bay-Lac La Biche. Repairing road.  
 South West of Brooks to Ferry. Grading, filling and culverts.  
 South of Cassils. Grading and culverts.  
 East 20 to 32-16-15-4 and East 5 to 32-17-15-4. Grading road.  
 Bassano to Majorville. Grading and culverts.  
 North of Duchess. Repairing road.  
 Brooks to Duchess. Grading road.  
 North 35 and 36-19-14-4. Grading road.  
 South of Millicent. Grading road.  
 East 6 to 31-19-15-4. Putting in culverts.  
 North East of Bassano. Grading and culverts.  
 North and South of Rosemary. Putting in culverts.  
 East 14 and 23-21-16-4. Putting in culverts.  
 South of Bassano-East 7 to 31-20-18-4. Grading and culverts.  
 North of Leckie (Range Line). Grading and culverts.  
 Countess to Gem. Grading road.  
 East 6 and 7-23-16-4. Putting in culverts.  
 North 20-22-16-4. Grading and culverts.  
 North 7-22-19-4. Grading and culverts.  
 East 2 to 35-22-20-4. Grading and culverts.  
 East 1 and 12-22-20-4. Grading and culverts.  
 North and West of Hussar. Grading and culverts.  
 North of Towers. Grading road.  
 North 7-23-20-4. Grading and culverts.  
 North of Cluny. Grading and culverts.  
 North 24-24-21-4. Grading and culverts.  
 North 8-23-21-4. Grading and culverts.  
 East 30-22-21-4. Grading and culverts.  
 Hussar to Wayne. Grading and culverts.  
 East Tp. 25-19-4. Grading and culverts.  
 Grade leading to Dorothy Ferry. Improvement of grade.  
 South of Magrath to Steel Bridge over Milk River. Grading and culverts.  
 West 17 and 20-1-21-4. Grading road.  
 North 19-20 and 21 and through 23, 25 and 27-1-21-4. Grading and culverts.  
 North 7 to 12-1-20 and 21-4. Putting in culverts.  
 North 33, 34, 35 and 36-1-21-4. Grading road.  
 East 29 and 32-2-24-4 and East 4 to 33-3-24-4. Grading and culverts.  
 East 10-3-24-4. Grading and culverts.  
 East of Taylorville (West Tp. 1-33-4). Grading and culverts.  
 Through 19-3-24-4. Grading road.  
 East of Kimball. Grading road.  
 North 8 and 9-3-24-4. Grading and culverts.  
 East 5 and 8-2-24-4. Grading road.  
 North 22, 23 and 24-2-24-4. Grading and culverts.  
 East 1 to 24-2-23-4. Grading road.  
 East 28 and 33-2-24-4. Grading road.  
 East 24, 25 and 36-1-24-4. Grading and culverts.  
 East 18 and 19-3-24-4. Grading road.  
 West of Taylorville. Grading road.  
 East 19 and 30-2-2-4. Grading and culverts.  
 North 34 to 36-2-24-4. Grading road.  
 East 17-2-24-4. Improvement of road.  
 East 14 to 35-1-22-4. Grading and culverts.  
 Cardston to Mountain View and West. Grading and culverts.  
 South of Cardston. Improvement of road.  
 Road up Lee Creek. Grading and culverts.

East 13 to 36-2-28-4. Grading and culverts.  
 East 2 and 11-1-26-4. Grading road.  
 Cardston to Boundary Creek. Grading and culverts.  
 Cardston to Leavitt. Repairing road.  
 East 13 to 36-5-21-4. Grading road.  
 North 20 to 24-5-19-4. Grading and culverts.  
 East 4 to 21-5-21-4. Grading and culverts.  
 North 8, 9 and 10-5-21-4. Grading road.  
 East 5, 8 and 17-5-21-4. Grading and culverts.  
 East 1 to 36-5-22-4. Improvement of road.  
 East 27-5-21-4. Improvement of road.  
 North 19-5-21-4 and North 24-5-22-4. Improvement of road.  
 South of Magrath. Grading and culverts.  
 South of Spring Coulee. Grading and culverts.  
 West of Raley. Grading road.  
 North and South of Raley. Grading and culverts.  
 East 27 and 34-4-22-4. Grading road.  
 North 31 and 32-4-21-4 and North 36-4-22-4. Grading road.  
 East 31-5-22-4. Grading and culverts.  
 West of Carnforth. Grading and culverts.  
 Macleod-Lyndon Trail. Grading and culverts.  
 Up South Fork of Trout Creek. Grading and culverts.  
 Surveyed Trail West of Claresholm. Grading and culverts.  
 North 19 to 24-10-28-4. Grading and culverts.  
 Stavelly-Willows Trail. Grading and culverts.  
 East 4 to 33-61-3-5. Grading and culverts.  
 East 26 and 35-60-3-5. Improvement of road.  
 North 15, 16 and 17-61-3-5. Opening road.  
 East 15-60-3-5. Improvement of road.  
 East 6-60-3-5. Improvement of road.  
 East 25 and 36-61-6-5. Improvement of road.  
 North East of Fort Assiniboine. Opening road.  
 East 25-70-11-6. Grading road.  
 North 25 to 30-70-11-6. Grading road.  
 North 31-70-9-6. Opening road.  
 East 26-70-12-6. Opening road.  
 On 20-25-4-5. Grading and culverts.  
 North 31 to 36-24-4-5. Grading and culverts.  
 South of 4-26-4-5. Grading and filling.  
 Calgary-Morley Trail. Grading and filling.  
 Cochrane to Upper Jumping Pound. Grading and filling.  
 East 2 and East and North 11-25-4-5. Repairing road.  
 East 1 to 12-25-4-5. Grading road.  
 Road to Little Jumping Pound—Tps. 24/25-5-5. Grading approaches  
 to bridge.  
 Road up Horse Creek. Grading and filling.  
 East 3 to 34-27-4-5. Repairing road.  
 East 10 and 15-26-4-5. Grading road.  
 East 22, 27 and 34-26-4-5. Grading road.  
 East 24-27-4-5. Repairing road.  
 Trail up Big Hill Creek. Grading and filling.  
 North 7-27-4-5. Grading and filling.  
 North 19, 20 and 21-27-2-5. Grading and filling.  
 South 1-27-4-5. Repairing road.  
 Cochrane to Loughheed. Grading and culverts.  
 East Tps. 27 and 28-5-5. Putting in culverts.  
 Trail through Grand Valley. Grading and culverts.  
 East 19-27-2-5. Grading and culverts.  
 North 35-26-5-5. Grading road.  
 North 35 and 36-27-5-5. Grading road.  
 Between Lots 7 and 8 Morleyville Settlement and across Sections 20 and  
 21-26-6-5. Opening road.  
 To Silver Creek Sawmill and Fallen Timber. Grading road.  
 Through 1, 2, 3, 9, 16, 17, 18 and 19-29-5-5. Grading road.  
 East 10-30-5-5. Grading road.  
 West of Kirriemuir. Grading and culverts.  
 Road at Dry Lakes. Repairs to grade.  
 Kirriemuir to Dry Lakes. Repairs to grade.

East 3 to 22-33-1-4. Grading road.  
 North of Altario. Grading and culverts.  
 Main Highway South of Tp. 35-3-4. Grading and culverts.  
 West of Monitor. Grading approaches to bridge.  
 South of Consort. Grading and culverts.  
 North of Consort. Grading road.  
 East 22-35-6-4. Repairing road.  
 East 5 and 8-35-6-4. Grading and culverts.  
 East 17 to 32-35-6-4 and East 5 to 32-36-6-4. Grading and culverts.  
 North of Monitor (Range Line). Putting in culverts.  
 East 6-35-4-4. Grading road.  
 East 5 and 8-35-8-4. Grading and culverts.  
 North Tp. 34-7-4. Grading and culverts.  
 East 29-35-9-4. Grading road.  
 North Tp. 36-8-4. Grading road.  
 North 33-35-8-4. Grading and culverts.  
 East 4 to 33-36-8-4. Grading road.  
 North 8 and 9-37-9-4. Grading road.  
 East 34-37-9-4. Repairing road.  
 East 14 and 23-26-2-5. Grading road.  
 Nose Creek Trail. Repairing road.  
 East 1-25-2-5 and East 1, 12 and 13-26-2-5. Grading road.  
 North 7-26-2-5. Grading road.  
 East 8-26-2-5. Putting in culverts.  
 East 16-32-5-5. Opening road.  
 North of Rocky Mountain House (West side of River). Grading roads.  
 Through 21, 28 and 33-52-18-5 and through 4-53-18-5. Opening road.  
 Rosevear to Ferry. Grading road.  
 Through 34-54-14-5. Grading and culverts.  
 North 20-54-15-5. Grading road.  
 East 23-53-14-5. Grading road.  
 North 8, 9 and 10-53-13-5. Grading road.  
 East 4 to 21-53-13-5. Grading road.  
 North 19, 20 and 21-53-13-5 and North 33 and 24-53-14-5. Grading road.  
 Tollerton to Dandurand. Repairing road.  
 North 2-51-26-5. Opening road.  
 East 33-51-15-5 and East 3-55-15-5. Grading road.  
 North 32 to 35-55-15-5. Grading and culverts.  
 Shiningbank South. Grading road.  
 Peers to Shiningbank. Grading road.  
 North 7-56-13-5. Opening road.  
 East 18 and 19-57-13-5. Opening road.  
 North 32-56-14-5. Improvement of road.  
 East 28 and 33-55-14-5 and East 4 and 9-56-14-5. Opening road.  
 North 19 to 21-22-22-4. Grading and culverts.  
 East 4 to 33-23-22-4 and East 3 to 34-24-22-4. Grading and culverts.  
 St. Bruno to Indiana Siding. Grading road.  
 Grouard to Sturgeon Lake. Grading road.  
 Grouard to Big Prairie Settlement. Grading road.  
 Grouard to Heart River and Salt Prairie Settlement. Grading road.  
 High Prairie to Big Prairie. Repairing road.  
 East 5 and 32-74-16-5. Putting in culverts.  
 East of High Prairie. Grading road.  
 East 27-78-21-5. Repairing road.  
 North and South of Falher. Grading and culverts.  
 East 5 to 32-77/78-21-5. Grading and culverts.  
 North 10-78-21-5. Grading road.  
 North and South of Donnelly. Putting in culverts.  
 East 2 to 35-28-18-4. Grading road.  
 Willow Creek-Rosedale Road. Grading road.  
 East Tp. 28-18-4. Opening road.  
 North 7 to 12-27-16-4. Opening road.  
 East 33-26-16-4. Opening road.  
 Pekisko-High River Trail. Repairing road.  
 In West  $\frac{1}{2}$  16-18-2-5. Grading and culverts.  
 South of Longview. Grading road.  
 North 13 and 14-18-2-5. Grading and culverts.  
 North 13, 14, 15 and 16-18-2-5. Grading road.

Ricinus to Dovercourt. Grading and culverts.  
 North West of Ravine P.O. Opening road.  
 South of Keston. Opening road.  
 Main highway leading to Whitecourt. Grading road.  
 South and West of Whitecourt. Grading and culverts.  
 East of Whitecourt. Opening road.  
 South of Whitecourt. Grading road.  
 East 5 and 8-59-10-5. Opening road.  
 East 4 and 9-59-10-5. Opening road.  
 North Tp. 56-10-5. Opening road.  
 North 34, 35 and 36-49-4-5. Grading and culverts  
 South of Berrymore Ferry. Grading road.  
 East and West of Pokehassett. Grading and culverts.  
 East 34-48-4-5. Opening road.  
 East 18 and 19-9-21-4. Grading and culverts.  
 East 3 to 34-9-22-4 and East 11-10-22-4. Grading road.  
 North 10-9-22-4. Grading road.  
 East 28 and 33-9-22-4 and East 4 and 9-10-22-4. Grading road.  
 North of Kipp. Grading road.  
 East 23-8-22-4. Repairing road.  
 North 23-8-22-4. Repairing road.  
 East 22 to 34-8-22-4. Grading road.  
 South 5-9-22-4. Grading and culverts.  
 East 4 to 33-11, 12 and 13-21-4. Grading road.  
 North 19 and 20-12-21-4. Grading road.  
 North 32-12-21-4. Repairing road.  
 North 7 to 12-13-21-4. Repairing road.  
 East Tp. 13-22-4. Grading and culverts.  
 East 15-13-21-4. Grading road.  
 East 8-13-21-4. Grading road.  
 East Tp. 17-21-4. Grading road.  
 East 2 to 35-17-20-4. Grading and culverts.  
 East 33-16-19-4. Grading and culverts.  
 East 18 and 19-10-23-4. Grading and culverts.  
 East 3 to 34-10-23-4. Grading roads.  
 East 12-10-24-4. Grading road.  
 North 11 and 12-10-24-4. Repairing road.  
 North 21 and 22-10-22-4. Grading and culverts.  
 East 27-10-24-4. Grading and culverts.  
 East 34-9-27-4. Grading road.  
 Through 4, 5 and 6-9-27-4. Grading and culverts.  
 East 3-1-2-4. Grading road.  
 North of Sage Creek. Grading road.  
 East Tp. 3-7-4. Grading road.  
 North and South of Comrey. Improvement of road.  
 North 8-3-7-4. Repairing road.  
 North 22, 23 and 24-3-7-4. Grading road.  
 East 5 to 32-3-7-4. Opening road.  
 Through 29-2-10-4. Repairing road.  
 East 2 and 11-10-2-4. Grading road.  
 North 11-10-2-4. Grading road.  
 Trail through Tp. 6-2-4. Opening road.  
 North and South of Orion. Repairing road.  
 East 4, 9 and 16-5-6-4. Grading and culverts.  
 West of Manyberries. Grading and culverts.  
 North East of Manyberries. Grading and culverts.  
 West of Minda to Pakowki. Grading and culverts.  
 East 17, 20 and 32-5-6-4. Grading and culverts.  
 South of Manyberries. Grading approaches to bridge.  
 Surveyed trail through Tp. 6-4 and 5-4. Grading and culverts.  
 East 36-9-4-4. Grading road.  
 East 25-9-3-4. Grading and culverts.  
 Irvine to Cypress Hills. Grading and culverts.  
 South of Walsh. Repairing road.  
 North 19-9-2-4. Grading road.  
 East 27-9-3-4. Grading road.  
 On 25-8-3-4. Repairing road.  
 Through 13, 14 and 24-8-3-4. Grading and culverts.



Graburn Creek North through Tps. 8 and 9-1-4. Grading and culverts.  
North 31-10-2-4. Grading and culverts.  
South of Pashley. Repairing road.  
Medicine Hat to Eagle Butte. Grading and culverts.  
East 28 and 33-6-6-4 and East 4-7-6-4. Grading and culverts.  
North 19, 20 and 21-6-6-4. Putting in culverts.  
North 1, 2 and 3-7-6-4. Grading road.  
East 31-9-4-4. Grading road.  
East 35-9-4-4. Grading and culverts.  
North 19, 20 and 21-9-4-4. Improvement of road.  
South of Whitley. Grading road.  
North 36-8-9-4. Grading and culverts.  
South of Seven Persons to Orion. Grading and culverts.  
North 21-7-9-4. Opening road.  
East 29-9-9-4. Putting in culverts.  
East 3-12-2-4. Putting in culverts.  
North of Walsh. Grading and culverts.  
North of Pashley. Grading and culverts.  
North 7 and 8-12-3-4. Grading and culverts.  
North 33 to 36-9-3-4. Grading and culverts.  
East 19-10-3-4. Repairing road.  
North 32-10-2-4. Repairing road.  
North 6-10-2-4. Repairing road.  
Through centre of 24-11-2-4. Opening road.  
East 10 and 15-10-2-4. Grading approaches to bridges.  
East 9-10-3-4. Repairing road.  
North of Winnifred. Grading and culverts.  
East 28 and 33-10-9-4. Grading and culverts.  
North of Seven Persons. Grading and culverts.  
North of Whitley. Grading road.  
North 8, 9 and 10-11-9-4. Grading and culverts.  
East 4-11-9-4. Grading road.  
East 15-11-9-4. Grading and culverts.  
North 19 and 20-11-7-4. Grading road.  
North 33-11-7-4. Repairing road.  
East 26-11-7-4. Repairing road.  
East 17-11-9-4. Grading road.  
North 12-10-7-4. Grading road.  
North 34-12-7-4. Grading road.  
Stavelly-Willows Trail. Repairing road.  
Through 10 and 11-15-29-4. Repairing road.  
East 14 and 23-14-29-4. Grading and culverts.  
West of Nanton. Grading road.  
Lake Saskatoon to Beaver Lodge River. Grading and culverts.  
East 8-71-10-6. Grading road.  
East 1-71-11-6. Opening road.  
East 24-71-10-6. Opening road.  
Beaver Lodge to Bear Lake Settlement. Grading and culverts.  
East and West of Halcourt. Grading and culverts.  
East and West of Buffalo Lake. Grading road.  
Lake Saskatoon to Beaver Lodge. Grading road.  
Beaver Lodge to Hythe. Grading road.  
North 7 to 12-74-8, 9 and 10-6. Grading and culverts.  
Hythe to Swan Lake. Grading and culverts.  
East 16-78-22-5. Opening road.  
East 22-78-22-5. Opening road.  
North 10-78-22-5. Grading road.  
Heart River to Smoky River. Grading hill.  
Lesser Slave Lake to Peace River Crossing. Grading Grouard Hill.  
East 11-83-21-5. Opening road.  
North 10-84-22-5. Grading road.  
Surveyed road through 10-60-1-5. Grading road.  
South of Pembina. Grading road.  
East 28 and 35-60-2-5. Grading road.  
North 23 and 24-60-2-5. Opening road.  
East Tp. 60-2-5. Opening road.  
Dusseldorf to Barrhead and West. Grading and culverts.  
South of Meadow Brook. Opening road.

South of Fawcett. Grading and culverts.  
 East of Honda. Opening road.  
 North of Irvine (Range Line). Grading and culverts.  
 North of Walsh. Repairing road.  
 North 7 to 12-13-3-4. Grading road.  
 Medicine Hat to Bowmanton. Grading and culverts.  
 East 18-13-4-4. Grading and culverts.  
 North 23 and 24-13-4-4. Repairing road.  
 North of Pashley. (Range line). Repairing road.  
 East 26-13-3-4 and East 14 and 23-14-3-4. Grading road.  
 South of Roseglen. Grading and culverts.  
 North 31 to 35-14-3-4. Grading road.  
 East of Vale. Grading road.  
 North of Medicine Hat. Grading and culverts.  
 North of Redcliff. Grading approach to bridge.  
 East 15-14-6-4. Grading approach to bridge.  
 North Tp. 14-6/7-4. Opening road.  
 North 36-13-8-4. Grading road.  
 North of Bowell. Grading road.  
 East 9 to 33-15-7-4. Opening road.  
 North 32, 33 and 34-15-7-4. Grading and culverts.  
 East 36-15-9-4. Repairing road.  
 Surveyed Road West of Redcliff. Repairing road.  
 West of Stair. Repairing road.  
 East Tps. 15 and 16-2-4. Grading road.  
 North 7-15-1-4. Grading road.  
 East of Roseglen. Grading and culverts.  
 East 16 and 21-16-2-4. Grading and culverts.  
 West of Schuler. Grading road.  
 East 18 to 31-15-1-4. Grading road.  
 North 19 and 20-16-1-4. Opening road.  
 East Tp. 18-8-4. Opening road.  
 East 4-16-7-4. Grading road.  
 East Tps. 17 and 18-2-4. Grading road.  
 North 34, 35 and 36-19-1-4. Opening road.  
 North 7 to 12-18-1-4. Grading and culverts.  
 North 32, 33 and 34-18-1-4. Grading and culverts.  
 East 21, 28 and 33-18-1-4. Grading and culverts.  
 East 14 to 35-19-1-4. Grading and culverts.  
 East 30 and 31-18-1-4. Opening road.  
 North 19 to 24-18-1-4. Opening road.  
 East 17 and 20-17-1-4. Grading and culverts.  
 North 22-17-1-4. Grading and culverts.  
 North 32-17-1-4. Grading and culverts.  
 East 27-17-1-4. Grading and culverts.  
 Pancras to Buffalo, Majestic and Atlee. Grading and culverts.  
 East 6, 7, 18 and 19-21-5-4. Grading road.  
 East 8, 17 and 20-21-5-4. Opening road.  
 East 12 and 13-21-6-4. Opening road.  
 East 10-20-5-4. Opening road.  
 North 10-20-5-4. Opening road.  
 East 16-20-5-4. Grading road.  
 East 7-22-7-4. Grading and culverts.  
 South of Iddesleigh Ferry. Grading road.  
 Empress to Bindloss. Grading road.  
 Surveyed Road East of Bindloss. Grading and culverts.  
 Surveyed Road through 25-22-2-4. Grading road.  
 Empress South to Ferry. Grading road.  
 East Tp. 21-2-4 and East 1 and 12-22-2-4. Grading and culverts.  
 East 5 and 8-38-4-4. Grading road.  
 North of Hughenden. Grading road.  
 North 9-40-9-4. Repairing road.  
 East 9-40-9-4. Repairing road.  
 East of Bragg Creek. Grading and filling.  
 Frog Lake South to Lea Park Ferry. Grading and culverts.  
 Through Frog Lake I R. to Fishing Lake. Opening road.  
 Frog Lake to Onion Lake. Repairing road.  
 Frog Lake to Beaver Crossing and Cold Lake. Grading and culverts.

Main Highway—St. Paul to Cold Lake. Grading road.  
East 1-62-5-4. Grading road.  
North 35 and 36-61-5-4. Opening road.  
North 16-63-2-4. Grading road.  
North and South of Newbrook. Opening road.  
Dowling to Newbrook and East. Grading road.  
East 18 to 31-6-20-4. Grading and culverts.  
West of Craddock. Grading road.  
Raymond to Welling. Grading and culverts.  
East 18, 19 and 30-5-20-4. Repairing road.  
East of Stirling. Grading road.  
East 16-6-20-4. Repairing road.  
South of Stirling (East Road). Repairing road.  
North 34-6-21-4. Grading and culverts.  
South of Stirling (West Road). Grading and culverts.  
Between 7/12-10-16/17-4. Grading road.  
North 10-16-16-4. Grading road.  
Surveyed Road through 6/7-9-18-4. Putting in culverts.  
North of Barnwell. Repairing road.  
South of Reliance. Grading road.  
East 17 to 32-9-16-4. Grading road.  
East 14 to 35-9-16-4. Grading road.  
East 15 to 34-9-16-4. Grading road.  
East 13 to 36-9-16-4. Opening road.  
East 5 and 8-7-17-4. Grading road.  
Conrad to Judson and West to Stirling. Grading road.  
Taber to Wrentham. Grading and culverts.  
North of Coaldale to Old Man River. Grading and culverts.  
Coaldale to Lethbridge. Repairing road.  
East 33-9-21-4. Grading and culverts.  
North of Broxburn. Grading road.  
North 7 to 10-10-20-4. Grading road.  
East 4 to 33-9-20-4. Putting in culverts.  
East 2 to 23-9-20-4. Grading road.  
South 2-9-20-4. Repairing road.  
East 18 and 19-9-20-4. Grading road.  
East 25-9-20-4. Grading road.  
East 2-8-21-4. Grading and culverts.  
North 7 to 12-7-19-4. Grading and culverts.  
North of Stirling. Grading and culverts.  
East 27-9-21-4. Repairing road.  
North of Coaldale to Bridge over Little Bow River. Grading and culverts.  
East 5 to 32-13-19-4. Grading road.  
North of Picture Butte. Grading road.  
East and West of Picture Butte. Grading road.  
North 7, 8 and 9-11-20-4. Repairing road.  
East 30 and 31-11-19-4 and East 6 to 19-12-19-4. Improvement of road.  
North 19-11-19-4 and North 24-11-20-4. Improvement of road.  
North Tp. 13-15-4. Grading and culverts.  
North of Enchant. Grading and culverts.  
North 36-15-18-4. Grading and culverts.  
East 28 and 33-14-16-4. Grading road.  
East 19-14-18-4. Improvement of road.  
North Tp. 13-18-4. Improvement of road.  
East 5-17-17-4. Improvement of road.  
East 20, 29 and 32-17-18-4. Grading road.  
East 1 and 12-17-18-4. Grading and culverts.  
East of Coutts. Grading and culverts.  
East 5 to 32-3-11-4. Grading road.  
North 23 and 24-1-11-4. Grading road.  
North 19 and 20-3-11-4. Repairing road.  
East 15-3-11-4. Grading road.  
Through 19-2-14-4. Grading road.  
Kippenville West to Milk River. Grading and culverts.  
North 7, 8 and 9-1-14-4. Grading road.  
North 33, 34 and 35-2-15-4. Grading road.  
East 27 and 34-2-15-4. Grading road.  
East 4-3-15-4. Grading and culverts.

North 10, 11 and 12-3-15-4. Opening road.  
 East 19-1-17-4. Repairing road.  
 East 36-3-17-4. Repairing road.  
 North 36-1-17-4. Grading road.  
 North 20 to 23-1-17-4. Grading road.  
 East 26 and 35-1-17-4. Grading road.  
 North 9 to 12-1-17-4. Grading road.  
 East 16 and 21-1-17-4. Repairing road.  
 East 15-1-17-4. Repairing road.  
 East 18-2-16-4. Repairing road.  
 East 15 to 34-3-16-4. Grading and culverts.  
 North 10-2-16-4. Grading road.  
 East 26 and 35-3-17-4. Opening road.  
 North 36-2-17-4. Opening road.  
 In 6-2-18-4. Grading road.  
 East 30 and 31-5-15-4 and East 6 to 31-6-15-4. Grading road.  
 East 1 to 24-5-16-4. Grading and culverts.  
 North 19-5-15-4. Opening road.  
 North 31 and 32-3-15-4. Grading and culverts.  
 East of Warner. Grading and culverts.  
 Skiff to Conrad and West. Grading and culverts.  
 Through 11-5-14-4. Grading and culverts.  
 North 31 and 32-45-4-5 and North 36-45-5-5. Opening road.  
 Knob Hill to Buck Lake. Opening road.

#### FERRIES 1920.

The total number of ferries operated by this Department in 1920 was 67.

There were three Ferries located at points where the traffic was so light that it did not warrant the employment of an operator. These ferries were maintained by the Department so that the people could operate them for their own convenience.

These were as follows:

Over Old Man River north of Purple Springs.  
 Over Old Man River north of Grassy Lake.  
 (New scow installed in 1920).  
 Over Pembina River at Pembina.

making 70 Government owned Ferries in the Province.

A new Ferry was built and installed at the following location:  
 Over Old Man River north of Chin.

New Scows were built in connection with the following Ferries:

Over Athabasca River at Athabasca.  
 Over Red Deer River north of Jenner.  
 Over Red Deer River north of Pancras.  
 Over Bow River at Amethyst.  
 Over Red Deer River at Dorothy.  
 Over North Saskatchewan River at Rocky Mountain House.  
 Over Pembina River north of Sangudo.  
 Over Macleod River at Whitecourt.  
 Over Pembina River at Manola.  
 Over Pembina River at Lunnford.  
 Over North Saskatchewan River north of Manville.  
 Over North Saskatchewan River at Lamora's Crossing.  
 Over North Saskatchewan River north of Bruderheim.  
 Over Bow River at River Bow.

#### COMPLETE LIST OF FERRIES OPERATING 1920.

Over Red Deer River at Prince's Ranch.  
 Over North Saskatchewan River at St. Paul.  
 Over North Saskatchewan River east of Whitford.

Over Athabasca River at Holmes Crossing.  
Over Bow River south of Cluny.  
Over Red Deer River at Dorothy.  
Over North Saskatchewan River at Victoria.  
Over Athabasca River at Athabasca.  
Over Tolman Ferry over Red Deer River.  
Over Pembina River at Pembina.  
Over North Saskatchewan River at Shandro.  
Over Pembina River at Wild Horse.  
Over North Saskatchewan at Hopkins Crossing.  
Over Red Deer River at Fieldholm.  
Over North Saskatchewan at Rocky Mountain House.  
Over Peace River at Peace River Crossing.  
Over Lac Ste. Anne at the Narrows.  
Over North Saskatchewan River north of Kitseoty.  
Over North Saskatchewan River north of Lamont.  
Over Pembina River at Sunnybend.  
Over Pembina River at Wrights Crossing.  
Over Saskatchewan River at Lamora's Crossing.  
Over Bow River south of Strathmore.  
Over Peace River at Dunvegan.  
Over South Saskatchewan River at Bow Island.  
Over North Saskatchewan River north of Manville.  
Over North Saskatchewan at Frasers Landing.  
Over Pembina River at Entwistle.  
Over Red Deer River at Steeveville.  
Over Bow River at Riverbow.  
Over Beaver River at Cold Lake Crossing.  
Over Old Man River north of Purple Springs.  
Over Bow River at Rocky Buttes.  
Over Red Deer River west of Munson.  
Over North Saskatchewan south of Tomahawk.  
Over Red Deer River at Finnigans Crossing.  
Over Pembina River at Matthews Crossing.  
Over North Saskatchewan River at Mooswa.  
Over Pembina River at Lunford.  
Over Old Man River north of Grassy Lake.  
Over Bow River at Eyremore.  
Over Macleod River north of Thornton.  
Over Macleod River at Whitecourt.  
Over South Saskatchewan River west of Iddesleigh.  
Over Bow River at Amethyst.  
Over Beaver River at Durlingville.  
Over North Saskatchewan River north of Bruderheim.  
Over Pembina River at Manola.  
Over Macleod River north of Peers.  
Over Red Deer River north of Jenner.  
Over Red Deer River at Gregory's Ford.  
Over North Saskatchewan River at Elk Point.  
Over Pembina River north of Sangudo.  
Over Red Deer River west of Morrin.  
Over Pembina River west of Eunice.  
Over Athabasca River at Mirror Landing.  
Over Athabasca River north of Greencourt.  
Over Macleod River at Mahaska.  
Over Red Deer River north of Paveras.  
Over Red Deer River north of Atlee.  
Over North Saskatchewan River at Forbesville.  
Over South Saskatchewan River at 4th Meridian.  
Over Macleod River north of Rosevear.  
Over Big Smoky River near the mouth of Wapiti River.  
Over Red Deer River north of Buffalo.  
Over Peace River at Fort Vermilion (Two Ferries).  
Over Saskatchewan River at Heinsburg.  
Over Red Deer River below Rosedale.  
Over Red Deer River at Niddrie's Crossing.  
Over Bow River south east of Riverbow.

**SURVEYS BRANCH**

EDMONTON, Jan. 27, 1921.

THE DEPUTY MINISTER,

*Department of Public Works,*

Edmonton, Alberta.

SIR:—I have the honour to submit the following Report in connection with work of the Surveys Branch for the year 1920.

The continued demand for surveys rendered it necessary to place a similar force in the field as in past years. Early in the season Mr. A. G. Stewart resigned from the Medicine Hat district, and it was deemed inadvisable to engage a new field force for the balance of the season. This, coupled with the fact that Mr. W. H. Young (who has since died) was compelled to discontinue his field work in the middle of September, has reflected somewhat unfavorably upon the amount of work completed in the field.

There is still a heavy list of outstanding requests to be carried forward to the 1921 schedule.

The Municipal Authorities have largely fallen into line with the new arrangements, and have engaged surveyors to undertake their work. The examining of plans submitted by these surveyors has entailed much office work, as the surveyors engaged have not been accustomed to prepare plans in accordance with the requirements of this Department.

The number of townsite plans presented for approval has been slightly larger this year, but the falling revenue from this source is due to the amendment made in the regulations as to the payment of approval fees.

Progress has been made in the Alberta and British Columbia boundary survey. The expenditure has been somewhat heavy, due to the cost of labor and transportation difficulties encountered in the spring, owing to the excessive rainfall.

Appended is a summary of the work of this branch during the year 1920 as also reports of the district surveyors and engineers

I have the honour to be,

Your obedient servant,

A. P. C. BELYEA,

*Director of Surveys.*

## SUMMARY.

Surveys required and brought forward from 1919 .....	989
Surveys asked for during 1920 .....	428
Surveys made during 1920 .....	363
Surveys carried over to 1921 schedule .....	905
Surveys made without instructions (included in the above figures).....	93
Miscellaneous examinations made during the season .....	81
Surveys cancelled during 1920 .....	68
Plans submitted and examined on behalf of M. D.'s.....	30
M. D. plans registered during 1920.....	13
Titles issued to roadways under M. D. plans .....	4
Plans prepared and filed in the Land Titles Office .....	411
Certificates of Title received for roads .....	407
Certificates of Title received for lands given for public purposes under Departmental regulations regarding subdivisions .....	14
Certificates of Titles of Public Buildings .....	5
Certificates of Title received for other than surveyed roads (areas cut off by surveyed roads) .....	6
Transfers issued covering roads no longer required .....	285
Number of plans of subdivisions approved during 1920 .....	54

## LEASE OF ROAD ALLOWANCES.

Number of new applications to lease road allowances .....	130
Number of new applications granted .....	74
Number of leases granted during the year 1920 (including free leases issued as compensation for surveyed roads) .....	322

## EXPENDITURE OF SURVEYS BRANCH FOR THE YEAR 1920.

General expenses of Surveys .....	\$66,796.96
Alberta and B. C. Boundary Survey .....	11,059.77
Compensation for surveyed roads .....	6,193.60
Provincial Maps .....	681.84
Land Titles Fees .....	933.90
Survey Posts .....	131.65
Sundries .....	2,451.59
	<u>\$88,249.31</u>

## INCOME FOR SURVEYS BRANCH FOR THE YEAR 1920.

Fees received in respect of plans of subdivisions submitted .....	\$ 4,288.51
Rental from road allowance leases .....	779.00
Fees received from M. D.'s in respect of surveys made within these Districts .....	3,808.83
Sundry Fees from sale of Maps, Diagrams, Etc. ....	117.65
	<u>\$ 8,993.99</u>

EDMONTON, Dec. 8, 1920.

A. P. C. BELYEA, ESQ.,  
*Director of Surveys,*  
 Edmonton, Alberta.

SIR:—I have the honour to submit the following Report in connection with survey work performed by me during the season of 1920.

I organized my party at Kinsella, May 26th, and after making a number of surveys in that neighborhood, worked Easterly until I reached Range three. I then worked Westerly, between the Grand Trunk Pacific and the Canadian Pacific Railways.

The season was favourable for survey work. Party was disbanded on November 15th.

I attach hereto, a classified list of Surveys.

I am, Sir,

Your obedient servant,

A. CORMACK,  
*District Engineer.*

#### ROAD DIVERSIONS.

Survey No.	File No.	Description.
159-16	23258	Diversion in S.E. $\frac{1}{4}$ of Sec. 26, 47-9-4.
224-17	23943	Diversion in N.W. $\frac{1}{4}$ of Sec. 11 and S.E. $\frac{1}{4}$ Sec. 15, Tp. 47-6-4
828-17	24451	Diversion in S. $\frac{1}{2}$ of Sec. 3, N.E. $\frac{1}{4}$ Sec. 33, Tp. 46 and 47, Range 7, West of 4th.
47-18	24522	Diversion in S.W. $\frac{1}{4}$ Sec. 15, Tp. 47-8-4.
315-18	24735	Diversion in S. $\frac{1}{2}$ Sec. 29, Tp. 45-7-4.
374-18	24787	Diversion in N.W. $\frac{1}{4}$ Sec. 25, Tp. 44-5-4.
367-18	24777	Diversion in N.E. $\frac{1}{4}$ of Sec. 34, Tp. 48-5-4.
376-18	24788	Diversion in S.E. 23 and N.E. 14, Tp. 45-5-4.
373-18	24790	Diversion in between Secs. 10 and 15, Tp. 45-5-4.
398-18	24833	Diversion in S.E. $\frac{1}{4}$ Sec. 3, Tp. 45-11-4.
422-18	23486-C	Diversion in E. $\frac{1}{2}$ of Sec. 13, Tp. 45-13-4.
542-18	24942	Diversion in S.E. $\frac{1}{4}$ Sec. 1, S.W. Sec. 6, Tp. 47, Rgs. 8 and 9, West of the 4th.
726-18	25201	Diversion in S.W. $\frac{1}{4}$ of Sec. 5, Tp. 47-7-4.
27-19	25431	Diversion in N.W. $\frac{1}{4}$ Sec. 19, Tp. 49-10-4.
37-19	25424	Diversion in S.W. $\frac{1}{4}$ Sec. 19, N.W. $\frac{1}{4}$ Sec. 18, Tp. 47, Rge. 12, West of the 4th
89-19	25549	Diversion in N.W. $\frac{1}{4}$ of Sec. 17, Tp. 45-13-4.
124-19	25557	Diversion in N.E. $\frac{1}{4}$ 25 and S.E. $\frac{1}{4}$ 36, Tp. 45-9-4.
189-19	25606	Diversion in S. $\frac{1}{2}$ of Sec. 3, Tp. 49-7-4.
619-19	24790	Diversion in W. $\frac{1}{2}$ of Sec. 11, Tp. 45-5-4.
623-19	26018	Diversion in N.E. $\frac{1}{4}$ of Sec. 9, Tp. 46-4-4
624-19	26017	Diversion in S.W. 3, N.E. 33, Tps. 45 and 46, Rge. 4. West of the 4th.
625-19	26016	Diversion in W. $\frac{1}{2}$ of Sec. 26, Tp. 45-4-4.
626-19	26015	Diversion in W. $\frac{1}{2}$ of Sec. 29, Tp. 45-4-4.
627-19	26021	Diversion in E. $\frac{1}{2}$ of Sec. 11, Tp. 45-5-4.
629-19	26019	Diversion in N.E. $\frac{1}{4}$ of Sec. 27, Tp. 45-5-4.
680-19	26020	Diversion in N.E. Sec. 25 and 31, Tp. 46, Tp. 5 and 6-4.



Survey No.	File No.	Description.
675-19	26049	Diversion in N.E. $\frac{1}{4}$ of Sec. 25, Tp. 48-10-4.
24-20	18411-B	Diversion in N.W. $\frac{1}{4}$ of Sec. 17, Tp. 48-8-4.
33-20	21656	Diversion in N.E. $\frac{1}{4}$ of Sec. 36, Tp. 46-12-4.
58-20	26179	Diversion in N.W. $\frac{1}{4}$ of Sec. 8, Tp. 49-7-4.
59-20	26183	Diversion in S.E. $\frac{1}{4}$ of Sec. 26, Tp. 48-7-4.
68-20	26122	Diversion in N.W. $\frac{1}{4}$ of Sec. 36, Tp. 47-9-4.
98-20	22602	Diversion in E. $\frac{1}{2}$ 1, S.W. $\frac{1}{4}$ 6, Tp. 47, Rgs. 11 and 12, West of the 4th.
101-20	15392-E	Diversion in N.E. $\frac{1}{4}$ of Sec. 25, Tp. 47-12-4.
107-20	26242	Diversion in S.E. $\frac{1}{4}$ of Sec. 12 and S.W. $\frac{1}{4}$ of Sec. 7, Tp. 47, Rgs. 11 and 12, West 4th.
111-20	26249	Diversion in W. $\frac{1}{2}$ 26 and N.W. $\frac{1}{4}$ 23, Tp. 47-11-4.
169-20	18756	Diversion in S.E. $\frac{1}{4}$ 5 and N.W. $\frac{1}{4}$ 32, Tps. 42 and 43, Rge. 9, West of the 4th.
171-20	26341	Diversion in Secs. 7 and 18, 12 and 13, Tp. 46, Rge. 8 and 9, West of the 4th.
194-20	26302	Diversion in N.E. $\frac{1}{4}$ Sec. 33, Tp. 47-7-4.
200-20	26305	Diversion in N.E. $\frac{1}{4}$ of Sec. 12, Tp. 46-13-4.
201-20	26306	Diversion in S.E. 15 and N.E. 10, S.W. 14, Tp. 46-12-4.
203-20	26308	Diversion in N.E. $\frac{1}{4}$ of Sec. 25, Tp. 45-13-4.
239-20	26343	Diversion in N.W. $\frac{1}{4}$ of Sec. 33, Tp. 45-8-4.
244-20	26349	Diversion in S.E. $\frac{1}{4}$ of Sec. 21, Tp. 48-8-4.
258-20	26355	Diversion in N.E. $\frac{1}{4}$ 7, W. $\frac{1}{2}$ of 8, Tp. 45-9-4.
260-20	26357	Diversion in N.W. $\frac{1}{4}$ of Sec. 31, Tp. 45-12-4.
262-20	26359	Diversion in N.E. $\frac{1}{4}$ of Sec. 7, Tp. 45-12-4.
263-20	26360	Diversion in S.E. $\frac{1}{4}$ of Sec. 19, Tp. 45-12-4.
295-20	26409	Diversion in S.W. $\frac{1}{4}$ of Sec. 26, Tp. 45-5-4.
306-20	26394	Diversion in N.W. $\frac{1}{4}$ of Sec. 35, Tp. 45-6-4.
326-20	26430	Diversion in S.E. $\frac{1}{4}$ 7 and N.E. $\frac{1}{4}$ 8, Tp. 47-6-4.
328-20	26429	Diversion in S. $\frac{1}{2}$ of Sec. 3, Tp. 48-9-4.
349-20	26449	Diversion in S. $\frac{1}{2}$ of Sec. 25, Tp. 45-4-4.
350-20	26450	Diversion in N.E. $\frac{1}{4}$ of Sec. 19, Tp. 45-4-4.
351-20	26451	Diversion in N.W. $\frac{1}{4}$ of Sec. 3, Tp. 46-4-4.
354-20	26456	Diversion in W. $\frac{1}{2}$ 14, S.W. $\frac{1}{4}$ 23, Tp. 45-6-4.
357-20	26459	Diversion in N.E. of Sec. 6, N.W. of Sec. 5, Tp. 45-9-4.
368-20	25463	Diversion in S. $\frac{1}{2}$ of Sec. 15, Tp. 45-4-4.
371-20	21762-B	Diversion in W. $\frac{1}{2}$ of Sec. 36, Tp. 44-4-4.
375-20	26477	Diversion in S.W. $\frac{1}{4}$ of Sec. 3, Tp. 44-13-4.
378-20	26484	Diversion in S.E. 30, W. $\frac{1}{2}$ 29, Tp. 46-11-4. S.E. $\frac{1}{4}$ of Sec. 1, Tp. 46-12-4. N.W. $\frac{1}{4}$ of Sec. 32, Tp. 45-12-4.
401-20	23994	Diversion in S. $\frac{1}{2}$ of Sec. 27, Tp. 45-11-4.
403-20	26510	Diversion in N.W. $\frac{1}{4}$ of Sec. 17, Tp. 45-11-4.
NEW ROADS		
194-17	23917	Secs. 30, 31, 32, 29, Tp. 47-6-4.
286-18	20245	S.W. $\frac{1}{4}$ of Sec. 11, Tp. 45-8-4.
368-18	23270	Secs. 9, 10 and 11, Tp. 45-4-4.
370-18	24781	Secs. 13 and 24, Tp. 47-7-4.
371-18	24789	Secs. 27, 28, 29, 32, 33, 34, Tp. 45-5-4.
480-18	23333	Secs. 21, 28 and 33, Tp. 46-6-4.
544-18	24940	Secs. 14 and 23, Tp. 48-5-4.
725-18	25200	Secs. 5 and 8, Tp. 47-7-4.
734-18	23491	N. $\frac{1}{2}$ of Sec. 1, Tp. 48-9-4.
280-19	24708	N. E. $\frac{1}{4}$ of Sec. 4, Tp. 46-10-4.
387-19	21920	Sec. 35, Tp. 47-12-4.
665-19	26039	Sec. 29, Tp. 47-7-4.
112-20	20688	Secs. 28 and 33, Tp. 46-11-4.
143-20	26218	S.W. $\frac{1}{4}$ of Sec. 14, Tp. 49-16-4.
170-20	26340	Secs. 16 and 17, Tp. 45-7-4.
195-20	26303	Sec. 29, Tp. 47-7-4.
199-20	20687	Secs. 15 and 22, Tp. 45-12-4.
227-20	26244	Secs. 26, 27, 28, 33, 34, 35, Tp. 47-8-4.
400-20	18040-C	Sec. 23, Tp. 47-6-4.
103-20	26238	N. $\frac{1}{2}$ of Sec. 36, Tp. 47-13-4.
106-20	26243	N.W. $\frac{1}{4}$ of Sec. 15, Tp. 48-11-4.
287-19	16347	S.E. 33, Tp. 51-25-4.

## EXAMINATIONS.

Survey No.	File No.	Description
24-19	25428	S.W. $\frac{1}{4}$ of Sec. 34, Tp 49-10-4.
25-19	25429	N.W. $\frac{1}{4}$ of Sec. 14, Tp 49-10-4.
26-19	25430	N.E. $\frac{1}{4}$ of Sec. 8, Tp. 49-10-4
91-19	25546	S. $\frac{1}{2}$ of Sec. 4, Tp. 44-15-4.
202-20	26307	N. $\frac{1}{2}$ of Sec. 23, Tp. 46-10-4.
617-19	22128	S.E. $\frac{1}{4}$ of Sec. 17, Tp. 44-5-4.
34-20	24444	E. $\frac{1}{2}$ of Sec. 35, Tp 49-9-4.

## MISCELLANEOUS.

102-20	15392-D	Dug Pits S.E. 35, Tp. 47-12-4.
105-20	24643	Dug Pits, E. 13, Tp. 47-13-4.

## ROAD DIVERSIONS—Continued

404-20	26508	N.W. of Sec. 32, Tp. 45-12-4.
405-20	26509	S.E. of Sec. 1, Tp 46-12-4.

EDMONTON, December 13, 1920.

A. P. C. BELYEA, ESQ.,

*Director of Surveys,*

Edmonton, Alberta.

SIR:—I have the honour to submit the following Report in connection with work performed by myself and party during the season of 1920 in the North Alberta District.

I organized my party in Edmonton and left for Grande Prairie on June 3rd. I then completed all the surveys required in the Grande Prairie country, and moved to Spirit River. After completing the work there, I moved to Peace River by way of Dunvegan, Blue Sky and Bear Lake, making all necessary surveys as I moved along. I finished the season at Peace River and left for Edmonton on November 26th. We had so much rain during the season, that it was most unfavorable for outside work.

Attached hereto is a summary of surveys made and examinations reported on.

I have the honour to be, sir,

Your obedient servant,

E. D. ROBERTSON,

*District Surveyor and Engineer.*

## DIVERSIONS.

Survey No.	File No.	Description.
838-17	24407	Diversion in Secs. 32 and 5, Tp. 83 and 84-22-5.
224-18	24660	Diversion in N.E. $\frac{1}{4}$ Sec. 8, Tp. 82-4-6.
412-18	24820	Diversion in N.E. $\frac{1}{4}$ Sec. 19, Tp. 73-5-6.
413-18	24821	Diversion in S.W. $\frac{1}{4}$ Sec. 29, Tp. 73-5-6.
414-18	24822	Diversion in N.W. $\frac{1}{4}$ Sec. 14, Tp. 73-5-6.

Survey No.	File No.	Description.
58-19	25477	Diversion in Secs. 10 and 15, Tp. 84-22-5.
62-19	25476	Diversion in S.E. $\frac{1}{4}$ Sec. 14, Tp. 74-10-6.
63-19	25473	Diversion in Secs. 19 and 20, Tp. 72-10-6.
69-19	25482	Diversion in Secs. 11 and 14, Tp. 73-11-6.
320-19	25700	Diversion in Secs. 19, 28, 29, Tp. 72-6-6.
485-19	25797	Diversion in S.E. $\frac{1}{4}$ Sec. 6, Tp. 73-4-6.
54-20	26194	Diversion in Secs. 2 and 3, Tp. 84-25-5.
62-20	23147	Diversion in S.W. $\frac{1}{4}$ Sec. 13, Tp. 73-6-6.
145-20	26278	Diversion in E. $\frac{1}{2}$ Sec. 19, Tp. 72-10-6.
237-20	26338	Diversion in N.E. $\frac{1}{4}$ of Sec. 10, Tp. 71-10-6.
242-20	26350	Diversion in S.W. $\frac{1}{4}$ Sec. 17, Tp. 71-9-6.
243-20	26351	Diversion in W. $\frac{1}{2}$ Sec. 13, Tp. 73-11-6.
329-20	25559	Diversion in W. $\frac{1}{2}$ Sec. 11, Tp. 72-7-6.
331-20	26433	Diversion in N.W. $\frac{1}{4}$ Sec. 11, Tp. 71-7-6.
332-20	26434	Diversion in Secs. 19, 30, 24, 25, Tp. 70-10 and 11-6.
333-20	26435	Diversion in N.W. Sec. 11, Tp. 71-6-6.
334-20	26436	Diversion in Lots 16 and 17 flying shot settlement and Sec. 8, Tp. 71-6-6.
336-20	26438	Diversion in N.W. Sec. 24, Tp. 73-6-6.
338-20	26439	Diversion in S. $\frac{1}{2}$ Sec. 30, Tp. 81-3-6.
339-20	26440	Diversion in Secs. 34 and 3, Tp. 72 and 73-8-6.
367-20	22808	Diversion in S.E. Sec. 15, Tp. 74-8-6.
374-20	17500-B	Diversion in Secs. 10 and 11, Tp. 79-5-6.
398-20	26505	Diversion in Secs. 11, 12, 14, Tp. 83-21-5.
422-20	26516	Diversion in Sec. 14, Tp. 84-22-5.

## NEW ROADS.

469-17	24149	Secs. 14, 23, 26, 35, 1 and 12, Tp. 81-2-6.
415-18	24817	Secs. 22, 23, 26, Tp. 72-4-6.
451-18	24836	Sec. 23, Tp. 81-4-6.
53-20	26193	Sec. 2, Tp. 84-1-6.
235-20	26336	Secs. 17 and 18, Tp. 71-9-6.
335-20	26437	E. $\frac{1}{2}$ of Sec. 25, Tp. 73-6-6.
362-20	22357-B	Secs. 30 and 31, Tp. 83-22-5.
372-20	25415	Secs. 15 and 22, Tp. 82-22-5.
373-20	26476	Secs. 16 and 21, Tp. 80-3-6.
418-20	25835	Secs. 26 and 35, Tp. 82-22-5.
419-20	25834	Secs. 5 and 8, Tp. 83-21-5.
421-20	26515	Secs. 14, 13, 18, 17, 16, Tp. 83-20-21-5.
423-20	26517	Secs. 23 and 24, Tp. 83-21-5.
424-20	26210	S.W. $\frac{1}{4}$ Sec. 17, Tp. 38-27-4.

## MISCELLANEOUS.

303-19	14114	Change in Survey in S.W. $\frac{1}{4}$ Sec. 6, Tp. 65-22-4.
380-19	24151	Change in Survey in Sec. 15, Tp. 71-7-6.
63-20	22279	Change in Survey in N.E. $\frac{1}{4}$ Sec. 21, Tp. 74-8-6.
64-20	22059	Change in Survey in Secs. 17 and 18, Tp. 71-9-6.
298-20	17503	Change in Survey in Secs. 28 and 29, Tp. 83-21-5.
399-20	23135-B	Change in Survey in Secs. 25 and 26, Tp. 83-22-5.
420-20	23135	Change in Survey in Sec. 31, Tp. 83-21-5.

## EXAMINATIONS.

433-17	24280	Examination in Sec. 7, Tp. 73-7-6.
834-17	23244	Examination in N.W. 25, Tp. 73-6-6.
223-18	24659	Examination in Secs. 26 and 35, Tp. 80-3-4.
411-18	24818	Examination in Secs. 2, 6, 7, 18, 19, Tp. 73-3-6.
414-19	25849	Examination in Secs. 1, 6, 5, 4, Tp. 78 3 and 4 6.
55-20	26195	Examination in N. 33, Tp. 71-10-6.
57-20	26190	Examination in Sec. 20, Tp. 72-10-6.
144-20	26277	Examination in 20, 21, 28, 29, Tp. 72-11-6.
15-20	20637	Examination in N. $\frac{1}{2}$ Sec. 10, Tp. 56-23-4.

Old Court House Bldg.,

CALGARY, Dec. 14, 1920.

L. C. CHARLESWORTH, Esq.,

*Deputy Minister of Public Works,*

Edmonton, Alberta.

SIR:—I beg to submit herewith Annual Report of the work done in the Calgary district during the season of 1920.

Owing to my having to make a very large number of searches in the Land Titles Office in connection with certain Irrigation schemes in Southern Alberta, I was unable to take the field until the last days of May.

The season has been a very favorable one for survey operations, very little time being lost through bad weather.

Owing to the pressing necessity of certain pieces of work, I found it necessary to abandon any set programme of work, and to arrange my work from time to time as necessity demanded.

The weather continuing fine, I was able to continue outside work until the 25th of November, when I disbanded my party.

Attached I have tabulated under their various headings the work performed during the season.

I remain,

Your obedient servant,

P. N. JOHNSON,

*District Surveyor and Engineer.*

#### NEW ROADS.

Survey No.	File No.	Description.
23-20	14558-B	Across Sec. 17, Tp. 20-28-4.
549-12	20521	In Secs. 29, 32 and 33, Tp. 21-25-4.
230-20	15001	In Sec. 31, Tp. 28-4-5, and Secs. 1, 2, 3 and 10, Tp. 29-5-5.
327-20	26431	Across Sec. 35, Tp. 29-4-5.
938-18	25304	Across Sec. 22, Tp. 30-4-5.
187-19	25616	Across Secs. 15, 16 and 17, Tp. 21-17-4.
691-18	25105	In Blackfoot Indian Reserve in Tps. 20 and 21, R. 19, West of 4th M.
648-18	16129	In Tp. 18-3-5 and 17-4-5.
353-20	26443	In Secs. 2, 3 and 4, Tp. 25-2-5.
428-20	14591	Across S. ½ Sec. 11, Tp. 25-3-5.

#### ROAD DIVERSIONS.

564-19	25935	Diversions in S. ½ Sec. 27, Tp. 29-4-5.
778-17	24383	Diversions in Secs. 26 and 27, Tp. 25-29-4.
694-19	15887	Diversions in N.E. ¼ Sec. 11, Tp. 24-26-4.
697-19	26006	Diversions in S.E. ¼ Sec. 17, Tp. 24-25-4.
698-19	26007	Diversions in S.W. ¼ Sec. 17, Tp. 23-24-4.
858-18	24303	Diversions in S.E. ¼ Sec. 13, Tp. 22-21-4.
88-16	23191	Diversions in E. ½ Sec. 18, Tp. 22-21-4.
538-18	24936	Diversions in Sec. 31, Tp. 20-25-4.

Survey No.	File No.	Description.
525-18	24902	Diversions in E. $\frac{1}{2}$ Sec. 29, Tp. 20-25-4
333-18	24758	Diversions in Secs. 25 and 26, Tp. 25-26-4
305-19	25657	Diversions in S.W. $\frac{1}{4}$ Sec. 2, Tp. 26-25-4.
417-18	24834	Diversions in Sec. 9, Tp. 25-24-4.
270-19	25677	Diversions in N.W. 3, Tp. 25-24-4.
274-19	25674	Diversions in N.W. Sec. 34, Tp. 25-25-4.
153-20	26260	Diversions in N.W. 24, Tp. 25-26-4.
711-18	25185	Diversions in Sec. 31, Tp. 25-26-4.
271-19	25675	Diversions in Secs. 31 and 32, Tp. 26-26-4.
152-20	26259	Diversions in Sec. 17-27-26-4.
278-20	16627-B	Diversions in S.E. $\frac{1}{4}$ Sec. 11, Tp. 30-29-4.
509-18	24930	Diversions in Sec. 16, Tp. 30-28-4.
265-20	26363	Diversions in Secs. 26, 35 and 36, Tp. 29-1-5.

## EXAMINATIONS.

95-20	14072-427	Examination re Irrigation scheme in Secs. 26 and 35, Tp. 23-1-5.
129-20	14151-A	Examination re change in surveyed road in Sec. 31, Tp. 27-3-5.
56-18	18123	Examination re surveyed road diversion in Sec. 31, Tp. 22-26-4.
29-20	26076	Examination of C.P.R. Diversion in S.E. $\frac{1}{4}$ Sec. 35, Tp. 20-18-4.
28-20	26077	Examination of C.P.R. Diversion in North $\frac{1}{2}$ Sec. 35, Tp. 20-18-4.
31-20	26107	Examination of C.P.R. Diversion in S.E. $\frac{1}{4}$ Sec. 30, Tp. 20-17-4.
30-20	26075	Examination of C.P.R. Diversion in S.E. $\frac{1}{4}$ Sec. 25, Tp. 20-18-4.
20-20	26087	Examination of C.P.R. Diversion in Sec. 3, Tp. 21-18-4.
803-18	25173	Examination in connection with road in Secs. 22, 26 and 27, Tp. 26-25-4
19-20	24230-B	Examination re surveyed road in S $\frac{1}{2}$ Sec. 17, Tp. 26-26-4
696-19	26008	Examination re-surveyed road in Sec. 5, Tp. 22-21-4.

## CHANGES IN SURVEYED ROADS.

80-20	14528	Change in surveyed road in Sec. 3, Tp. 23-1-5.
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## DRAINAGE.

279-20	20133	Drain to drain slough on road allowance East of Sec. 8, Tp. 30-1-5.
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## TIES AND CHECKS.

201-19	25653	Making tie to surveyed road in N.W. $\frac{1}{4}$ Sec. 12, Tp. 27-24-4.
426-20	22209	Check on surveyed road in Sec. 21, Tp. 26-6-5.

## MISCELLANEOUS

699-19	25566	Survey of gravel pit in N.W. $\frac{1}{4}$ Sec. 21, Tp. 26-29-4.
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LETHBRIDGE, December 8, 1920.

A. P. C. BELYEA, Esq.,  
*Director of Surveys,*  
*Department of Public Works,*  
 Edmonton, Alberta.

SIR:—I have the honour to submit herewith the following Report in connection with survey work performed during the season of 1920 in the Lethbridge District.

The work is classified under: New Roads, Road Diversions, Changes in Existing Surveys, Re-surveys and Examinations.

After organization of my party, I left Lethbridge on May 20th and commenced field work the following day at New Dayton in Municipal District No. 36. We then moved northerly and westerly, completing the work in the districts of Chin, Turin, Sundial, Champion and Stavely to the foothills, thence southerly through Cowley, Pincher Creek, to Cardston, and thence returned to Lethbridge. With the exception of a small area in the north-westerly corner, the whole of the Lethbridge District had been covered. It was the aim to complete all outstanding work, which had been requested by the several Municipal Districts, and, with the exception of occasional surveys, which had been definitely decided upon, this has been carried out.

The latter part of the season was spent in the Medicine Hat District, where all survey work was completed in Municipal Districts Nos. 34, 64 and 65.

Field work was finally discontinued and the party disbanded on November 4th.

The season, although somewhat short, owing to the late spring, was on the whole very favorable to the carrying out of survey work. No difficulty was experienced in securing help, as the same party was retained throughout the season.

Field plans, with reports, were submitted during the season as the work progressed. Final plans and Office Records are now being prepared.

All of which is respectfully submitted.

Your obedient servant,

HOMER P. KEITH,

*District Surveyor and Engineer.*

#### NEW ROADS

Survey No.	File No.	Description	
4-15	22272	New Road in Secs 25 and 36, Tp 9-3-5	
607-15	22761	" " Sec 22, Tp 7-10-4	
870-15	23038	" " Sec 18, Tp 1-22-4	
213-16	23306	" " Secs 26, 27, 28, Tp. 6-11-4	
440-16	15222-B	" " Secs 11 and 12, Tp. 1-23-4	
458-17	17546-C	" " Secs 10 and 11, Tp 4-16-4	
483-17	24143	" " Sec 13, Tp. 8-11-4	
566-17	24275	" " Sec. 10, Tp. 11-23-4.	
18-18	24494	" " Secs 16 and 22, Tp 5-1-5	
593-18	24983	" " Secs 28 and 33, Tp 13-21-4	
2-19	19431	" " Sec. 9, Tp 12-19-4	
18-19	14120-C	" " Sec. 8, Tp 6-1-5	
19-19	16616-B	" " Secs 29 and 31, Tp 13-28-4.	
87-19	16616-C	" " Sec 11, Tp 14-30-4	
129-19	25577	" " Sec. 18, Tp 11-18-4.	
131-19	25460	" " Sec 36, Tp 6-19-4	
480-19	25802	" " Sec 27, Tp. 14-28-4.	
597-19	15705-B	" " Sec. 31, Tp. 5-1-5	
663-19	26043	" " Secs 2 and 11, Tp 5-14-4.	
666-19	25808	" " Secs 2 and 11, Tp 9-3-5	
751-19	25414	" " Secs. 3 and 9, Tp 8-29-4.	
13-20	24828-B	" " Sec 26, Tp 14-26-4.	

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Survey No	File No	Description.
41-20	14289	New Road in Secs. 31 and 32, Tp. 7-1-5.
104-20	26239	" " Secs. 3 and 10, Tp. 6-16-4.
126-20	26271	" " Sec. 31, Tp. 10-18-4.
216-20	15681-B	" " Secs. 10, 11 and 14, Tp. 11-29-4.
355-20	21466-B	" " Sec. 36, Tp. 1-22-4.
392-20	26500	" " Secs. 30 and 31, Tp. 10-26-4.

## NEW ROADS.

406-20	26074	New Road in Secs. 15 to 18, Tp. 10-14-4
151-20	26289	" " Secs. 10 and 11, Tp. 12-20-4.

## ROAD DIVERSIONS

498-10	18604	Road Diversion in Sec. 31, Tp. 10-24-4.
81-11	18848	" " Sec. 30, Tp. 5-11-4.
397-17	16068-B	" " Sec. 30, Tp. 6-1-5
445-17	26240	" " Sec. 31, Tp. 4-17-4.
780-17	24398	" " Sec. 28, Tp. 5-18-4.
48-18	24525	" " Sec. 30, Tp. 6-17-4.
394-18	24786	" " Sec. 29, Tp. 4-23-4
567-18	24984	" " Secs. 11 and 14, Tp. 14-16-4
835-18	19360-B	" " Secs. 35 and 36, Tp. 4-1-5.
130-19	25468	" " Sec. 33, Tp. 6-18-4
478-19	25803	" " Sec. 33, Tp. 13-25-4.
479-19	25804	" " Secs. 1 and 2, Tp. 4-25-4
612-19	25970	" " Sec. 24, Tp. 1-24-4
613-19	25968	" " Secs. 7 and 8, Tp. 1-24-4.
618-19	26029	" " Sec. 34, Tp. 14-16-4.
65-20	26171	" " Sec. 28, Tp. 8-1-5.
356-20	26454	" " Secs. 23 and 26, Tp. 3-24-4.
414-20	26511	" " Sec. 32, Tp. 2-25-4
413-20	26068-B	" " Sec. 34, Tp. 4-13-4
417-20	26514	" " Sec. 14, Tp. 5-14-4.
416-20	26513	" " Sec. 26, Tp. 5-14-4.
415-20	26512	" " Sec. 23, Tp. 6-14-4.

## CHANGES IN EXISTING SURVEYS.

17-18	18951	Change in Survey in Sec. 35, Tp. 5-2-5.
186-19	15179	" " Secs. 2 and 11, Tp. 1-25-4.
616-19	14283	" " Secs. 18 and 19, Tp. 7-2-5.
17-20	14251-K	" " Secs. 9 and 10, Tp. 8-5-5.
408-20	14167-C	" " Piegan I.R. Sec. 30, Tp. 8-26-4.

## RE-SURVEYS.

183-19	16189	Re-survey in Sec. 33, Tp. 10-29-4.
43-20	15404	" " Secs. 28 and 33, Tp. 4-23-4.
	18140	" " Blood I.R., Cardston to Greenwood.
	23215	" " Blood I.R., Cardston to Hillspring.

## EXAMINATIONS.

526-09	18090	Examination in Sec. 23, Tp. 8-22-4.
69-13	20749	" " Sec. 23, Tp. 8-30-4.
316-13	21023	" " Sec. 11, Tp. 8-26-4.
329-14	21720	" " Sec. 10, Tp. 8-11-4.
69-16	14613-D	" " Sec. 30, Tp. 1-27-4.
80-16	18890	" " Secs. 9 and 10, Tp. 9-2-5.
212-16	23294	" " Secs. 23 and 26, Tp. 5-11-4.
254-16	23308	" " Secs. 3 and 10, Tp. 9-22-4.
403-16	23419	" " Sec. 28, Tp. 7-1-5.
775-16	23726	" " Sec. 28, Tp. 2-16-4.
64-17	23838	" " Sec. 35, Tp. 5-20-4.
406-17	23978	" " Sec. 14, Tp. 7-2-5.
538-17	24168	" " Sec. 25, Tp. 12-21-4.
447-17	24142	" " Sec. 18, Tp. 4-17-4.
814-17	23726	" " Sec. 28, Tp. 2-16-4.

Survey No.	File No.	Description
143-18	24412-B	Examination in Sec 18, Tp. 2-16-4
352-18	24769	" Sec 19, Tp. 6-26-4
385-18	24807	" Sec. 22, Tp. 13-21-4
568-18	24989	" Sec 36, Tp. 15-18-4.
797-18	25280	" Sec 11, Tp. 5-1-5
798-18	25281	" Sec 31, Tp 5-2-5
837-18	25303	" Sec. 34, Tp 5-1-5.
22-19	25317	" Sec. 20, Tp 9-1-5
56-19	25478	" Sec 36, Tp. 1-21-4
125-19	25578	" Sec. 23, Tp. 9-19-4.
181-19	15706	" Sec. 29, Tp 6-1-5.
297-19	25785	" Sec. 11, Tp 1-25-4.
406-19	25949	" Sec. 7, Tp. 15-25-4
518-19	25969	" Sec 19, Tp 1-24-4
598-19	16356-B	" Sec. 31, Tp. 5-1-5
40-20	26176	" Sec. 6, Tp 10-20-4
410-20	26177	" Greenhill Mine Railway.
42-20	26180	" Sec. 14, Tp 8-20-4.
44-20	21196	" Sec 12, Tp. 9-3-5.
411-20	19491	" Sec 19, Tp 4-16-4
371-20	24968	" Sec. 12, Tp 7-21-4.
88-20	25530	" Sec 17, Tp 10-2-5.
89-20	26169	" Sec 22, Tp 7-3-5.
215-20	18115	" 25 and 36, Tp. 14-30-4.
173-20	26330	" Sec 2, Tp. 10-17-4
396-20	20680	" Sec. 7, Tp 8-3-5.
396-20	20680	" Sec 7, Tp 8-3-5.
281-20	16080	" Sec 3, Tp 6-20-4
409-20	14023-144	" Closing Dearborn Street, Blairmore.
389-20	14034	" Sec 25, Tp 16-16-4.

CALGARY, December, 11, 1920.

A. P. C. BELYEA, Esq.,  
*Director of Surveys,*  
 Edmonton, Alberta.

SIR.—I have the honour to submit the following General Report showing the different surveys made in the Lacombe District during the season of 1920.

I commenced work in the vicinity of Stettler on June 7th and finished on November 17th near Wetaskiwin.

Following are the surveys made.

Your obedient servant,

GEORGE McMILLAN.

#### NEW ROADS

Survey No.	File No.	Description
687-16	23655	S W. $\frac{1}{4}$ Sec. 15 and S E. $\frac{1}{4}$ Sec. 16, Tp 38-5-5
414-17	24103	Secs 5 and 8, Tp 38-4-5.
444-17	23719	Secs 33, 28 and 29, Tp 32-19-4
11-19	25391	N.W. $\frac{1}{4}$ Sec 14, Tp 43-23-4.
13-19	25389	S W. $\frac{1}{4}$ Sec. 3, Tp. 43-24-4.
208-19	21628	Between 1 and 2 and 11 and 12, Tp 33-20-4.
252-19	25526	N of Sec. 2, Tp. 33-29-4.



Survey No.	File No.	Description
301-19	21731	Secs 6 and 7, Tp. 35-20-4.
432-19	15481	S. of Sec. 35, Tp. 38-16-4.
511-19	25918	Secs. 14 and 15, Tp. 33-4-5.
66-20	26153	N. $\frac{1}{2}$ of Sec. 36, Tp. 31-24-4.
141-20	21995	N. $\frac{1}{2}$ of Sec. 17, Tp. 37-21-4.
147-20	20203-B	S. $\frac{1}{2}$ of Sec. 27, Tp. 34-21-4.
233-20	26331	N. $\frac{1}{2}$ Sec. 19, Tp. 36-19-4.
234-20	26332	N.W. $\frac{1}{4}$ Sec. 24, Tp. 36-19-4.
285-20	26392	Sec. 35, Tp. 33-20-4.
286-20	26393	Secs. 7 and 18, Tp. 43-17-4.
288-20	14557	Secs 28, 27, 26 and 35, Tp. 46-23-4
289-20	18195	Secs 28 and 33, Tp. 31-5-5.
297-20	26402	W. $\frac{1}{2}$ Sec. 31, Tp. 31-4-5.
358-20	26465	Secs 10, 11 and 14, Tp. 46-4-5
359-20	26466	Secs 7 and 18, Tp. 46-3-5 and Sec. 12, Tp. 46-4-5
360-20	26467	S.E. $\frac{1}{4}$ Sec. 16, Tp. 46-3-5.
395-20	14255-C	Indian Reserve east of Pigeon Lake.
407-20	26505	Secs 9, 4, 5 and 6, Tp. 46-4-5; Secs. 1, 2, 3, 4, 5 and 6, Tp. 46-5-5, and Secs. 1, 2, 11 and 10, Tp. 46-6-5.

## DIVERSIONS

855-14	22125	N.E. $\frac{1}{4}$ Sec. 3 and S.E. $\frac{1}{4}$ Sec. 10, Tp. 32-28-4.
553-15	22727	N.E. $\frac{1}{4}$ Sec. 12, Tp. 39-22-4.
333-17	24018	N.E. $\frac{1}{4}$ Sec. 26, Tp. 32-20-4.
12-19	25390	N.E. $\frac{1}{4}$ Sec. 7, Tp. 43-24-4.
236-19	16466	S.W. $\frac{1}{4}$ Sec. 2, Tp. 33-28-4.
247-19	25527	N.E. $\frac{1}{4}$ Sec. 23, Tp. 32-27-4.
248-19	25524	N.E. $\frac{1}{4}$ Sec. 35, Tp. 31-27-4.
308-19	25729	S.W. $\frac{1}{4}$ Sec. 25, Tp. 34-21-4.
313-19	25728	Between Secs 2 and 3 and 10 and 11, Tp. 36-19-4.
490-19	25794	N.W. $\frac{1}{4}$ Sec. 24, Tp. 31-19-4.
491-19	25822	S.W. $\frac{1}{4}$ Sec. 18, Tp. 44-22-4.
541-19	25892	S.W. $\frac{1}{4}$ Sec. 1, Tp. 33-19-4.
549-19	25917	S.W. $\frac{1}{4}$ Sec. 21, Tp. 33-3-5.
584-19	19426	S.W. $\frac{1}{4}$ Sec. 3, Tp. 32-5-5.
586-19	25995	Between Secs 17 and 18 and 19 and 20, Tp. 36-19-4.
588-19	25996	N.E. $\frac{1}{4}$ Sec. 15, Tp. 35-19-4.
589-19	25998	Between Secs 1 and 2 and 11 and 12, Tp. 34-20-4.
590-19	25997	N. of Secs 11 and 12, Tp. 34-20-4.
591-19	25999	S.W. $\frac{1}{4}$ Sec. 25 and N.E. $\frac{1}{4}$ Sec. 24, Tp. 35-21-4.
592-19	26000	N.E. $\frac{1}{4}$ Sec. 35, Tp. 35-21-4.
593-19	25951	Between Secs. 35 and 36 and 25 and 26, Tp. 36-20-4.
78-20	18148-B	E. $\frac{1}{2}$ Sec. 5, Tp. 38-18-4.
140-20	26265	N.E. $\frac{1}{4}$ Sec. 36, Tp. 37-21-4.
142-20	26287	N.E. $\frac{1}{4}$ Sec. 20, Tp. 37-21-4.
157-20	16152	Sec. 7, Tp. 32-28-4.
231-20	20968	S.W. $\frac{1}{4}$ Sec. 13, Tp. 35-19-4.
236-20	26300	N.E. $\frac{1}{4}$ Sec. 14, Tp. 36-19-4.
238-20	26339	N. $\frac{1}{2}$ Sec. 33, Tp. 33-21-4.
252-20	26384	S.W. $\frac{1}{4}$ Sec. 26, Tp. 32-19-4.
253-20	26385	N.W. $\frac{1}{4}$ Sec. 19, Tp. 32-19-4.
254-20	26386	S.W. $\frac{1}{4}$ Sec. 27, Tp. 33-20-4.
255-20	25794-B	S.E. $\frac{1}{4}$ Sec. 18, Tp. 31-19-4.
256-20	25891	N. $\frac{1}{2}$ of Sec. 15, Tp. 32-21-4.
257-20	24140	N.W. $\frac{1}{4}$ Sec. 11, Tp. 31-20-4.
290-20	16139-B	S. $\frac{1}{2}$ of Sec. 29, Tp. 32-2-5.
291-20	26398	E. $\frac{1}{2}$ of Sec. 11, Tp. 33-5-5.
292-20	26403	S.E. $\frac{1}{4}$ Sec. 29, Tp. 33-4-5.
293-20	26407	S.E. $\frac{1}{4}$ Sec. 29, Tp. 33-3-5.
294-20	26408	S.W. $\frac{1}{4}$ Sec. 19, Tp. 33-4-5.

## GRAVEL PITS

121-20	26266	Secs. 31 and 32, Tp. 38-21-4 and Secs. 4 and 5, Tp. 39-21-4.
220-20	26346	S.E. $\frac{1}{4}$ Sec. 28, Tp. 46-23-4.

## CEMETERY.

361-20	26468	S.W. $\frac{1}{4}$ Sec. 22, Tp. 46-3-5.
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EDMONTON, Dec. 6, 1920.

A. P. C. BELYEA, ESQ.,

*Director of Surveys, Department of Public Works,*  
Edmonton, Alberta.

SIR:—I beg to submit the following report covering my field work in the district north-west of Edmonton during the year 1920.

I organized my party during the last week of May, and started work north of Cherhill. From there, outstanding surveys were completed as far east as the E. D. & B. C. Railway, and north to the Athabasca River.

I then moved westerly to the Sangudo District, and worked as far as Whitecourt and the McLeod River, completing surveys which have been outstanding for several years. I finished work for the season at Onoway, and arrived in Edmonton November 25th.

Field work was delayed considerably by bad roads and rainy weather.

Attached is a list of work done, classified as: Diversions, New Roads, Miscellaneous and Examinations.

Yours truly,

HARRY S. DAY,

*District Surveyor and Engineer.*

## ROAD DIVERSIONS

Survey No	File No.	Description
111-15	22416	Road Diversion in Sec. 25, Tp. 56-5-5.
235-15	22484	" " S F $\frac{1}{4}$ of Sec. 9, Tp. 62-3-5
639-16	23627	" " Secs. 15, 16 and 22, Tp. 59-12-5
640-16	23628	" " Secs. 15, 23, 26, 27, 34 and 35, Tp. 58-12-5.
536-17	24218	" " between Secs. 1 and 12, Tp. 58-7-5
656-18	25153	" " S W. $\frac{1}{4}$ Sec. 3, Tp. 61-27-4, N W. $\frac{1}{4}$ Sec. 34, Tp. 60-27-4.
334-19	21475	" " W. $\frac{1}{2}$ Sec. 25, Tp. 59-4-5.
501-19	25807	" " Secs. 18 and 19, Tp. 57-6-5.
502-19	25829	" " Sec. 5, Tp. 59-5-5.
45-20	26174	" " N E. $\frac{1}{4}$ Sec. 3, Tp. 59-10-5; S E. $\frac{1}{4}$ Sec. 10, Tp. 59-10-5
46-20	23169	" " Secs. 10 and 15, Tp. 61-27-4; Secs. 11 and 12 Tp. 61-1-5.
76-20	26211	" " through Sec. 58-12-5, 59-12-5
114-20	26230	" " Secs. 28, 33 and 34, Tp. 57-5-5.
115-20	26231	" " E. $\frac{1}{2}$ Sec. 9, Tp. 58-5-5
135-20	26173	" " Secs. 1, 2, 11 and 12, Tp. 55-2-5
137-20	26275	" " between Secs. 3 and 4, Tp. 59-5-5
138-20	26274	" " between Secs. 15 and 16, Tp. 59-5-5.
159-20	26291	" " N E. $\frac{1}{4}$ Sec. 29, Tp. 56-8-5.
232-20	26329	" " S W. $\frac{1}{4}$ Sec. 28, Tp. 60-2-5.
246-20	26382	" " Secs. 5, 7 and 8, Tp. 57-7-5.
247-20	26383	" " S. $\frac{1}{2}$ Sec. 17, Tp. 57-7-5
296-20	26399	" " Secs. 30, 31, 25 and 36, Tp. 58-10-5; 58-11-5.
303-20	26426	" " S.W. $\frac{1}{4}$ Sec. 10, Tp. 59-10-5.
304-20	26425	" " Secs. 25, 26 and 36, Tp. 58-11-5.
340-20	26442	" " Secs. 14 and 23, Tp. 59-12-5.
393-20	26497	" " W. $\frac{1}{2}$ Sec. 35, Tp. 54-2-5; S W. $\frac{1}{4}$ Sec. 2, N.E. $\frac{1}{4}$ Sec. 3, Tp. 55-2-5.

## NEW ROADS.

Survey No.	File No.	Description.
632-13	21368	New road and diversion in Sec. 5, Tp. 57-4-5.
672-15	23025	" " from Sec. 20 to Sec. 22, Tp. 59-12-5, 58-13-5.
848-18	25309	" " Sec. 33, Tp. 59-5-5.
20-19	25380	" " N. 1 and 2, N. Sec. 6, Tp. 59-6-5; 59-5-5.
36-19	21660-B	" " Secs. 13 and 14, Tp. 59-5-5 (diversion).
43-19	25446	" " N. Secs. 15, 16 and 17, Tp. 61-3-5.
503-19	25828	" " Secs. 16, 17, 19, 20, 21 and 30, Tp. 58-5-5.
745-19	20638-B	" " and diversion from N.E. 30, Tp. 57-9-5 to Sec. 35, Tp. 56-11-5.
72-20	22800-B	" " N. Sec. 29 and 30, Tp. 57-6-5.
134-20	25932	" " Sec. 17 and Lot 14, Tp. 54-3-5.
161-20	22389-B	" " between Secs. 18 and 19, Tp. 58-9-5.
158-20	26292	" " through Secs. 5 and 8, Tp. 56-8-5.
219-20	16551-C	" " N. Sec. 6, Tp. 59-4-5.
267-20	25830	" " in Sec. 18, Tp. 59-4-5.
346-20	15845-B	" " N. of Secs. 27 and 28, through Sec. 34, Tp. 58-10-5.

## MISCELLANEOUS.

267-15	20669	Change N. E. $\frac{1}{4}$ Sec. 22, Tp. 59-12-5.
245-20	21525-B	Change S. W. $\frac{1}{4}$ Sec. 26, Tp. 57-6-5.
266-20	15618-B	Change Sec. 4 to 9, Tp. 60-1-5.
386-20	15845	Change Secs. 2, 3, and 4, Tp. 59-10-5.
392-20	14538-B	Change Sec. 35, Tp. 54-2-5.
397-20	26498	School Site, S. W. $\frac{1}{4}$ Sec. 35, Tp. 54-2-5.

## EXAMINATIONS.

755-18	25221	Proposed diversion in Secs. 15 and 16, Tp. 57-6-5.
756-18	25220	Proposed diversion N. W. $\frac{1}{4}$ Sec. 35, Tp. 57-6-5.
341-19	23379-B	Proposed change, Sec. 18, Tp. 57-5-5.
77-20	26212	Diversion and ferry site, Tps. 59 and 60, Rgs. 9 and 10, W. 5th.
162-20	26293	Proposed diversion, Secs. 14 and 36, Tp. 58-9-5.
163-20	26290	Proposed diversion between Secs. 35 and 36, Tp. 56-7-5; between Secs. 1 and 2, Tp. 57-7-5.
394-20	23803	Proposed diversion, Sec. 7, Tp. 60-11-5.

## DRAINAGE BRANCH

EDMONTON, December 31, 1920.

L. C. CHARLESWORTH, ESQ.,  
*Deputy Minister of Public Works,*  
Edmonton, Alberta.

SIR:—I beg to submit the following report of the work of the Drainage Branch, during the year 1920.

Petitions were received for the formation of six new drainage districts, under the Drainage Act; but owing to the contemplated revision of the present Act, investigation into the necessity and feasibility of drainage in these districts, was deferred.

During the year construction was carried on in four districts.

*District No. 1 (Holden)—*

It was expected that the work would have been completed in this district, but owing to the difficulty in procuring labour, the contractors were given an extension of time. To date, of the main ditches, 475,000 cubic yards have been excavated, or ninety per cent. of the total. Sixty per cent. of the lateral ditches is completed, representing an excavation of 65,000 cubic yards. In addition to a number of small culverts built on lateral ditches, nine bridges have been constructed, over main ditches, where they cross road allowances. Several tracts formerly under water in this district have been drained, and while sufficient time has not yet elapsed to allow of their cultivation, there has already been considerable benefit derived from increased hay crops, and one piece of land, which last year was covered by water to a depth of two feet, this year has produced a good crop of oats, the seed being simply disced into the soil without further cultivation.

*District No. 4 (Daysland)—*

The contract for the construction work of this district was let in May, and the contractors commenced in July. So far, two miles of the main outlet ditch have been completed, the excavating amounting to 74,000 cubic yards. The bed width of the main ditch is 18 feet, and the material is being excavated by a class 24 drag line excavator. The total excavation to complete the ditches in this district will amount to one million cubic yards, and there will be required one hundred bridges and farm crossings, varying in length from 10 feet to 50 feet, and one hundred road culverts. The length of the main ditch, from the outlet in Driedmeat Creek to its commencement in Quarrel Lake, near Daysland, is twenty-five miles, and the total length of main and lateral ditches in the scheme amount to one hundred and eighty miles.

*District No. 6 (Viking)—*

The work in this district has been finished during the year, and is the first completed drainage district under the present Drainage Act. The total excavation amounted to 70,000 cubic yards, and the combined length of the ditches is thirty miles. The material was excavated

entirely by team work, the class of ditches being too small to warrant the introduction of machinery. Seventy road culverts and farm crossings were built in connection with the scheme. The benefit of the drainage to the district was evident, notwithstanding the fact that the year was unusually dry. The heavy run off from the snow in spring, as well as that from a heavy rainstorm of short duration during summer, being quickly carried to an outlet. Before the construction of the ditches this quantity of water would have lain in depressions within the district until evaporated, and the Village of Viking was relieved from the former periodical flooding.

*District No. 7 (Dickson)—*

Construction work was carried on in this district during the season, but owing to the difficulty of procuring labour, and the high prices prevailing, the contractor was unable to carry on the work after the month of August. For the remainder, the Department took over the work under the terms of the contract. Up to the end of the year 52,000 cubic yards had been excavated, or sixty-five per cent. of the total amount.

*District No. 8 (Forestburg)—*

The contract for the construction work in this district was let in July, to the lowest tenderer—the same contractor who was engaged on construction work in District No. 7. Not having completed District No. 7, he was unable to undertake this work, and it was decided not to proceed any further towards finally letting the contract until the spring of 1921.

*Districts No. 2 (Wavy Lake); No. 3 (Killam); No. 9 (Ewing Lake), and No. 13 (Beaverhills Lake)—*

Are all at the same stage of development as a year ago. It has not been definitely decided whether to proceed with the formation of the districts, or to drop the schemes.

*Districts No. 5 (Bawlf) and No. 10 (Wetaskiwin)—*

Have been definitely discontinued, and the petitioners have been assessed for the preliminary costs, as provided by the Drainage Act.

*District No. 11 (Little Hay Lake)—*

The assessment of the lands within this district was carried out; appeals against the assessment were disposed of, and everything ready for calling for tenders for the construction work. The scheme appears feasible, and the benefits in excess of the estimated cost. It was, however, decided not to proceed with construction work until the new Drainage Act came into force.

*District No. 12 (Big Hay Lake)—*

No further survey work has been done in this district during the year. The outlet for this drainage system is into Bittern Lake, and the Reclamation Service of the Dominion Government investigated the provision of an outlet from Bittern Lake, to ascertain if they would be justified in constructing this outlet for the benefit derived from lands reclaimed in Bittern Lake. They have now decided not to attempt the partial drainage of Bittern Lake, so that the whole cost of

the outlet would fall on the Big Hay Lake district. It will now have to be ascertained whether the benefits derived from reclaimed lands in the Big Hay Lake scheme will justify this outlay.

Since the Reclamation Act came into force, the Reclamation Service of the Dominion Government has carried out investigations and surveys throughout the Province for drainage purposes. The schemes taken up by this Service are under Part I of the Act, where owners of fractional quarter-sections wish to reclaim the swampy or submerged portions, and so own the full quarter-section; and under Part IV., where large tracts of submerged or swampy lands can be reclaimed, and of which area more than fifty per cent. is vacant Dominion lands. Several small projects, under Part I., are in the process of being constructed, but the larger schemes have not yet reached beyond the stage of being investigated.

Your obedient servant,

A. MACDONALD,

*Drainage Engineer.*

## ARCHITECTURAL BRANCH

EDMONTON, January 10, 1921.

L. C. CHARLESWORTH, ESQ.,  
*Deputy Minister of Public Works,*  
Edmonton, Alberta.

SIR:—I have the honour to present to you the report of the Architectural Branch for the year 1920.

As compared with previous years, the work of this Branch has been very considerable, and especially the office work, largely on account of the fact that the proposed Calgary Normal School and Institute of Technology scheme has been fully designed and detailed twice. The amount of construction work has also been considerable, and has consisted principally of the completion of contract work awarded in 1919, the only new contracts awarded during 1920 being for a Laundry Building at the Asylum, Ponoka, the Workshops Building of the Calgary Technical Institute scheme and a Police Building at Peace River.

The general condition of the building industry has been most unsatisfactory, owing to the scarcity and high cost of both labour and material, a condition which now appears to be considerably improving.

The maintenance and operation of all Provincial Buildings, under the care of this Branch has been satisfactorily carried on, and all these buildings are now in excellent condition. The work as performed in detail is as follows:

### *Provincial Asylum, Ponoka—*

The construction of a Male Dormitory and Dining Hall, Nurses' Dining-room and Refrigerating Rooms commenced in 1919 have been satisfactorily completed and taken over from the contractors. Plans and specifications prepared in 1919 for a new Laundry Building were revised and tenders invited on the construction. The contract was awarded to H. G. McDonald & Co., of Edmonton, the lowest bidders. The work has proceeded satisfactorily, and the building is now practically ready for the machinery.

A large amount of repair work and alterations to the older buildings of the Institution were performed and the old buildings are now in very fair condition.

### *Provincial Gaol, Fort Saskatchewan—*

Drawings and details for an addition to the Engine Room were prepared and the building has been erected and completed by use of prison labour.

### *Agricultural Schools—*

The construction of the Agricultural Schools, at Raymond, Youngstown and Gleichen, have now been completed under the con-

tract awarded in 1919, and all buildings are now in use by the Department of Agriculture, and are satisfactory in every way.

These buildings were furnished and equipped under the supervision of this Branch and much of the special equipment was detailed in this office and manufactured in the Carpenter Shop operated in Edmonton by the Branch.

The Department of Agriculture invited tenders and awarded contracts for the erection of Farm Buildings in connection with the above schools, the plans and specifications having been prepared by this Branch, and all technical advice regarding these contracts was given by this Branch.

*Court House, Medicine Hat—*

The contract on this building, awarded in 1919, has been sufficiently completed for some time to allow occupation of the building, the first Court being held in the new building during September. The special Court Room fittings were detailed in this office and manufactured in our Edmonton Shop.

*Normal School and Institute of Technology, Calgary—*

The office work on this building has fully occupied the Technical Staff of this Branch for the whole year. Complete plans and specifications were prepared and tenders invited in April on the first scheme, estimated to cost \$1,150,000.00. The tenders received were unsatisfactory in so far as there was too great a difference between the lowest and the highest bids. The average of the tenders, however, were practically identical with the estimate.

After consideration of the tenders, and considering the unsatisfactory condition of the building industry, it was decided to postpone construction until a later date, and also to modify the scheme. This modification necessitated the entire re-study and design of the project and the preparation of an entire new set of working drawings and specifications.

The Workshop portion of the scheme was taken up separately and tenders invited in September, and the contract awarded to Thomas, Jamieson, McKenzie, Ltd., of Calgary, the lowest bidders.

The drawings and specifications for the main portion of the scheme are now completed, ready to invite tenders

*Provincial Police Buildings—*

Plans and specifications were prepared for a building for the Provincial Police Headquarters at Peace River. Tenders were invited and the contract awarded to Messrs. Gander & Clarke, Peace River. The building is now completed and occupied.

A number of sketches were also prepared for buildings at other points, but, owing to the unsatisfactory building conditions, no other construction was undertaken.

*Central Alberta Sanitarium at Keith—*

This Branch continued supervision over the construction of this Institution begun in 1919. The buildings were completed in the late



summer and are now occupied by patients under the care of the Department of Soldiers Civil Re-establishment.

*Rural Hospitals—*

A number of plans for proposed hospitals, to be erected under the Municipal Hospitals Act were referred to this Branch, were inspected, and were duly reported upon but no construction work was undertaken. Hospital Buildings begun during 1919 and completed in 1920 were duly inspected. All have now been satisfactorily completed.

*Rural Schools—*

The service to the Department of Education in connection with Rural School planning is steadily increasing. During the past year one hundred and ninety-eight plans were reported on, representing an expenditure of approximately \$980,000 for School Buildings. This Branch also prepared a number of plans for additions to one-roomed schools. A number of inspections of old buildings were made for the purpose of advising trustees as to the advisability of making additions and alterations. All this work has been carried out with entire satisfaction to all parties concerned.

*Maintenance and Operation—*

The maintenance and operation of all buildings under the care of this Branch has been most satisfactorily undertaken. Mr. D. E. McDonald, General Building Superintendent, having given his most careful attention to this matter, and all buildings are now in the very best order. This particular activity of the Architectural Branch is steadily increasing from year to year by the addition of other buildings, as, for example, the three new Agricultural Schools and the Court House at Medicine Hat during the last few months, as, also, the care of all the premises in use by the Provincial Police.

The Wood-working Mill in Edmonton has continued to operate in the most satisfactory manner and has turned out all special equipment for the new Agricultural Schools and the Court House at Medicine Hat as well as a large amount of furniture of different kinds for the various buildings, also providing all necessary mill-work for alterations and repairs to the various buildings.

It is satisfactory to note that the plant is being operated at a profit which is estimated during the past year to amount to approximately \$11,000.

The above is, in detail, the work as carried out by this Branch and, I might add, that the actual disbursements in connection with new construction amount to approximately \$633,000, and the disbursements in connection with Maintenance and Operation is approximately \$328,000, or a total expenditure of \$961,000.

I have the honour to be, sir,

Your obedient servant,

RICHARD P. BLAKEY,

*Provincial Architect.*

## STEAM BOILERS BRANCH

EDMONTON, February 3, 1921.

L. C. CHARLESWORTH, ESQ.,  
*Deputy Minister of Public Works,*  
 Edmonton, Alberta.

SIR:—I have the honour to submit to you herewith the following Annual Report of the Steam Boiler Branch for the year 1920.

The past year has been an exceptionally busy one for the staff, owing to the unusual urgent demand for inspections. A large number of boilers were placed in service which had previously been in disuse for several years, also a number of power plant extensions and several new plants required our attention, in addition to an increase in the number of compressed air tanks installed throughout the province.

Since the resignation of Mr. Wm. Gray last March, repeated visits to the Medicine Hat districts had to be made by Inspectors Marshall, Dick and myself at the request of steam users, who, in most cases, have willingly paid all expenses for a special inspection rather than violate the Act, or take chances in operating their boilers without having them inspected.

Inspector Marshall met with an accident in January while working at the rear of a battery of boilers. He stepped on a loose trap door and broke a bone in the arch of his foot, consequently, he was incapacitated for several weeks.

Inspectors Hawkins and Bradshaw were also unable to attend to their regular duties for a period of over five weeks, each having an attack of the 'flu in the early part of the year, otherwise the general work of the Branch has continued very satisfactorily, and we take much pleasure in reporting the absence of any loss of life or serious personal injury, due to the failure or operation of a boiler governed by the Act, throughout the year.

The weekly returns of boilers inspected show 2,297 inspections to have been completed, including both high and low pressure boilers, boiler accessories, piping arrangements, air tanks, etc. 1,889 of these inspections covered high pressure and 343 low pressure boilers, the balance being air receivers and other pressure accessories. Of these, 1,611 are reported in good condition; 581 fair; 84 moderate; 17 poor, while 4 have been condemned as unfit for further service.

A summary of the various types of boilers inspected follows:

Horizontal Tubular .....	426
Horizontal Furnace .....	61
Return Tubular .....	14
Locomotive .....	1071
Vertical .....	161
Water Tube .....	94
Air Receivers .....	131
Steel Heating .....	230
Cast Iron Heating .....	109
Total .....	2297

Sample test strips of regulation dimensions were obtained from the shell and furnace plates of a Robb Mumford type boiler, which was damaged beyond repair at the Galt Mines plant, Lethbridge, to ascertain the chemical and physical condition of the material after being in service for nearly twenty-two years.

The tests proved interesting in that the quality of the material, after this long service, proved to be practically equal to the present specifications for boiler plate steel. These averaged for:

SHELL PLATES.		
Thickness	Elongation	Ult. Stress
0.37 in.	22.3 per cent.	58,000 lbs.
Sulphur.....	.034 to 0.042 per cent.	
Phosphorus.....	0.036 to 0.047 per cent.	
FURNACE PLATES.		
Thickness	Elongation	Ult. Stress
0.5 in.	28.3 per cent.	48,200 lbs.
Sulphur.....	.043 to 0.049 per cent.	
Phosphorus.....	0.044 to 0.046 per cent.	

The management of the mine were pleased to have this information because the power plant contains eight other boilers of the same type and about the same age, connected together on one steam main; consequently, the tests proved very reassuring.

A number of boilers have been damaged through over-heating necessitating heavy repairs, the one reported at the A.B.C. Company's Mine, at Drumheller, being a very close call indeed. In several instances where investigation proved the engineer in charge to be responsible he was suspended, and in one instance the engineer's certificate was cancelled for operating the boiler without a gauge glass. Several boilers were damaged by overheating, due to the lack of proper equipment, and in each case the owners were instructed to provide this without delay.

A compressed air tank 22" x 7'-0" x 1/8", having a single riveted longitudinal seam, 3-16", cambered heads brazed to shell, exploded at the Redcliff pumping station on December the 24th, and practically wrecked the building, the lumber sides and one end being blown out, and the roof blown off.

This tank was inspected last on May the 13th, 1918, by Inspector Gray, and allowed a working pressure of 76 pounds, just one pound more than the limiting pressure which would have exempted the tank from inspection. He ordered a regulation safety valve to be installed and a drain at the lowest part of tank. As the pressure allowed was insufficient to start the gas engines, he advised the Town Council to obtain a tank suitable for a pressure of at least 200 pounds, but this advice was ignored by the Council, and the tank permitted to continue in service, and when giving evidence the engineer in charge stated that five minutes before the explosion occurred he noticed the pressure gauge connected to the tank registered 175 pounds per square inch. Both ends of the tank were blown out, and the shell plate torn into three pieces, showing the violence of the explosion. The safety valve has not yet been found, and is evidently buried in the snow. Fortunately, no personal injury resulted; nevertheless the matter is still under investigation.

Examinations for engineers' certificates have been held at 19 advertised points in the Province, including Spirit River, Peace River Crossing, Grand Prairie and High Prairie, which were well attended. In addition to these, 84 examinations were held at district headquarters, those at Medicine Hat having been conducted by myself since the month of March. A total of 1,102 engineers' and firemen's certificates were issued altogether to successful candidates, an increase of 7.8 per cent. over those granted last year. 108 certificates issued to returned soldiers without charge of the regular fee under Order-in-Council 551/18 represented a revenue of \$650, which is not taken to account in the itemized list of fees collected as given below.

Under the provisions of Section 39 of the Act, 226 permits were issued to owners of boilers and engineers who were temporarily unable to secure the services of qualified engineers.

A protest was received from the Canadian Brotherhood of Engineers and Firemen against the employment of Chinese and Japanese as firemen in stationary power plants, while so many English speaking firemen are out of employment. This matter was taken up with the Attorney General's Department, with the explanation that the practice of employing anyone who cannot intelligently understand the English language or answer questions relating to the operation of a boiler when required by the engineer, is entirely unsafe and contrary to the intent of The Boilers Act. The Attorney General has this matter under consideration.

An annual registration of certificated engineers has again been urged by the engineers in a recent meeting with their representative delegation. This matter has already been submitted to you, when it was decided to attempt an Interprovincial understanding and if possible draft a uniform Act for the Western Provinces. Advantage was taken at the meeting of Chief Inspectors for the Western Provinces held in New Westminster last May, to complete the final draft of the Regulations governing the construction and inspection of boilers, to submit this question for discussion. The method of registration now in use in the provinces of Ontario and Manitoba was considered, and generally approved, but owing to the amount of work in connection with the Regulations, the Committee, which represented all the provinces in the Dominion, felt that more time would be required to deal with the matter than could be allotted to it, and, therefore, decided to take up the question again at a future conference.

I am pleased to report that the object of the conference in arriving at a satisfactory code of Regulations was entirely successful, after an Interprovincial endeavor for uniformity along these lines of at least 11 years. These Regulations, with your recommendation, were adopted by the Government to supersede those issued under Section 55, Chapter 9 of The Boilers Act, 1912, and have so far proved satisfactory to all concerned.

This report would be very incomplete if we omitted to refer to the work undertaken by the Department of Education in so thoroughly providing for the advancement of knowledge in Mechanical Engineering at the new Technical Institute, Calgary. The Mechanical Section of the Institute has been well equipped with the necessary models and charts, and more is being constantly added under the direction of

Mr. D. A. Campbell, Director of Technical Education. In addition, Mr. Campbell has appointed the best Instructors obtainable in the Province to take charge of this work. Mr. R. N. Dingwall, late Master Mechanic of the Mountain Park Coal Company, undertakes the general supervision of this branch, also the principal part of the Academic duties, and Mr. W. H. Broughton, of Red Deer, the correspondence course section. Both of these gentlemen are well qualified for the work, and hold First-Class Engineer's Certificates for Alberta, proving their practical, as well as theoretical qualifications.

Our certificated engineers have not been slow to take advantage of this means for obtaining a technical education at a nominal fee, proving their confidence in the staff appointed by the Government. The attendance at both day and night sessions has far exceeded all anticipations and 85 students have enrolled for a correspondence course, being unable to attend the lectures in Calgary, up to the 15th of January. This, we feel, is a very valuable addition to the service of the Steam Boilers Branch, and will materially assist in providing for both safety and efficiency, by building up the standard of men entrusted with the operation and maintenance of power plants, etc., in Alberta.

Referring to my present duties, in addition to the general routine work of the Branch, I have undertaken the survey of new power plant designs and extensions, boilers and accessories as submitted for approval under Section 21 of the Act. These include 10 power plants, 42 boiler, 12 air receiver, and 30 accessory designs complete with specifications. The revenue from fees received from this service amounts to \$396.50.

Returns of cases of illegal operation and prosecutions for violating the Act show that 12 persons were convicted altogether. Five of these occurred under Section 4 for operating a boiler without a license plate; five for taking charge of and operating without being in possession of an engineer's certificate, as required by Section 38, and two cases of employing uncertificated engineers under Section 40. The fines imposed totalled \$360.00.

Seventeen license plates were issued free in accordance with Section 8, Subsection 2 of the Act.

I have the honour to be, sir,

Your obedient servant,

F. W. HOBSON,

*Chief Inspector of Boilers.*

#### SCHEDULE.

	1919	1920
Number of Certificates Issued for Boilers Inspected .....	2179	2122
Number of Advertised Examinations Held for Engineers ....	28	19
Number of First Class Certificates Issued.....	4	4
Number of Second Class Certificates Issued .....	18	25
Number of Third Class Certificates Issued .....	142	166
Number of Traction Final Certificates Issued .....	101	114
Number of Firemen's Final Certificates Issued .....	45	42
Number of Provisional Certificates Issued .....	345	491
Number of Renewals of Provisional Certificates Issued .....	209	260
Number of Permits Issued .....	161	226

## DEPARTMENT OF PUBLIC WORKS

## FEES COLLECTED.

	1919	1920
For Inspection of Boilers .....	\$ 9,397.00	\$ 8,425.00
For Special Examination of Boilers, etc. ....	577.01	1,785.19
For Examination of Candidates for Final Certificates .....	1,465.00	1,532.50
For Provisional Certificates .....	2,645.00	3,505.00
For Permits .....	1,207.50	1,680.00
For Survey of Drawings .....	309.00	396.50
For the Issue of Boiler License Plates .....	10,545.00	12,975.00
Total .....	\$26,145.51	\$30,299.19

## EXPENDITURES

For the year ending December 31st, 1920, in connection with the administration of The Boilers Act.

Salaries and Expenses .....	\$28,187.00
Operation of Seven Automobiles .....	4,874.63
Railway Transportation .....	689.65
Printing, Advertising and Sundries .....	3,923.49
Total .....	\$37,674.77

LETHBRIDGE, December 31, 1920.

L. C. CHARLESWORTH, ESQ.,

*Deputy Minister of Public Works,*

Edmonton, Alberta.

SIR:—I have the honour to submit to you my annual report for the year ending December the 31st, 1920.

In the early part of the month of January I was in the hospital suffering from an injured foot, and I was, therefore, unable to do any outside work for a time, all correspondence, however, was attended to.

Examinations for engineers have been held in Lethbridge on the first Friday and first Saturday in each month throughout the year with the following results:—

First Class Certificates .....	1
Second Class Certificates .....	4
Third Class Certificates .....	16
Traction Final Certificates .....	18
Provisional Certificates .....	52
Renewal of Provisional Certificates .....	20
Total .....	111

Twenty-eight candidates failed to obtain sufficient marks to entitle them to the class of certificates they were trying for, but were granted certificates of a lower grade.

A total of 271 boilers were inspected by me during the year, and the following is a list of the types and condition of same:—

## HIGH PRESSURE.

Horizontal Tubular .....	90
Horizontal Furnace .....	16
Return Tubular .....	3
Locomotive .....	63
Vertical .....	13
Water Tube .....	22
Air Receivers .....	33
Total .....	240

## LOW PRESSURE.

Steel Heating .....	31
---------------------	----

The condition of boilers inspected is as follows:—

Good .....	183
Fair .....	83
Moderate .....	5
Total .....	271

The number of Inspection Certificates issued was 255.

To enable owners to keep their plants running, I issued sixty-two permits under Section 39 of The Boilers Act.

During the year I have made twenty-four special inspections, one of these necessitating a journey to Winnipeg to inspect and purchase a large locomotive for one of the coal companies in the Crow's Nest Pass. The owners defrayed all expenses incidental thereto.

I am pleased to be able to report that no accidents have occurred to any boilers in this district this year, neither has any person been injured in the operation of any of the various types of steam plants.

The complete explosion of an air receiver, which was being used in connection with the operation of a gas engine, has occurred with the result that the building in which the tank was situated was considerably damaged, the roof being blown off, the end of the building blown out, a large hole made in a brick wall and all the windows were also blown out. Owing to the wrecked building being covered with a heavy fall of snow, some portions of the exploded tank have not yet been found, and some of the fittings attached to the tank have not yet been found, therefore, before the cause of the explosion can be ascertained it will be necessary to find the portions of the tank and the fittings which are still missing.

I am pleased to say that no person was injured in any way by the explosion. The engineer on duty at the time of the accident had a most miraculous escape from being killed by flying debris, pieces of tank, fittings, etc.

There is a large number of boilers and air receivers throughout the Southern portion of the Province that have not been inspected during the past two years. This is due to lack of inspectors. The district at present under my supervision is far too large for one Inspector, and it is absolutely impossible to inspect all the boilers in one year. The Boilers Act requires that each boiler shall be inspected once

a year, and in my opinion it is essential to safety that this provision be complied with, otherwise, it is merely a question of time before serious accidents might occur.

Correspondence and enquiries at this office take up a great amount of time, and when I return from an inspection trip lasting ten days or so, I am simply inundated with enquiries and phone messages.

The only remedy for the unsatisfactory state of affairs existing in the Steam Boiler Branch of the Alberta Government would be the employment of a sufficient number of competent Inspectors to do the work efficiently.

Number of letters received during the year totals 504, and 571 dispatched.

I have the honour to be, sir,

Your obedient servant,

N. MARSHALL,

*Inspector of Boilers, District No. 1.*

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HIGH RIVER, December 31, 1920.

L. C. CHARLESWORTH, ESQ.,

*Deputy Minister of Public Works,*

Edmonton, Alberta.

SIR:—I have the honour to submit to you my Annual Report as Inspector of Boilers for the year ending December 31st, 1920, in accordance with the requirements of Section 17, Clause 4, of The Boilers Act.

During the first four months of the year I was engaged inspecting heating and power boilers in the City of Calgary and assisting Inspector Buxton with the Engineers' Examinations during that period. I then inspected the boilers used in the construction of the Acme-Drumheller Railway. After the completion of these inspections I commenced inspecting the boilers used for agricultural purposes and outlying power plants.

Engineers' Examinations were held at my headquarters on the first Saturday of each month, except in the month the Department instructed me not to hold same.

I held one special examination at the Burns-Jordan Camp on the construction of the Acme-Drumheller Railway, the expenses incidental thereto being defrayed by the Company.

A total of 54 candidates presented themselves for examination during the year, 6 of these failing to qualify owing to not having



sufficient experience and 4 on account of being unable to furnish the necessary proof of their experience.

Certificates were recommended as follows:—

Second Class Certificates.....	1
Provisional Certificates.....	38
Renewal of Provisionals.....	5
Total.....	44

A total of 345 boilers and receivers were inspected by me during the year, 343 certificates being issued.

The following is a list of the types and condition of same:—

#### HIGH PRESSURE.

Horizontal Return Tubular .....	18
Locomotive Firebox .....	229
Vertical .....	25
Water Tube .....	22
Air Receivers .....	5
Total .....	299

#### LOW PRESSURE.

Horizontal Return Tubular.....	22
Internal Furnace .....	3
Locomotive Firebox.....	7
Vertical .....	2
Cast Iron Sectional.....	11
Spencer Heater.....	1
Total .....	46

Condition of boilers:—

Good.....	263
Fair .....	77
Poor .....	4
Condemned .....	1
Total .....	345

A greater number of steam threshing outfits were in operation in this district this year than in previous years since 1916.

I have no serious accidents or explosions to report, with the exception of a fire which burned down the Calgary Petroleum Products Company Absorption Plant at Black Diamond, in which 10 receivers and a number of pumps and compressors were destroyed.

I have no serious personal accidents to report.

Two permits were issued to owners of boilers in accordance with Section 39 of The Boilers Act.

I have had a number of complaints of illegal operation, but upon investigation I found no ground for such complaints.

Five special inspections were made during the year, four within the district, and one in the Medicine Hat district.

During the year I mailed 611 letters and received 405 letters and parcels.

I have the honour to be, sir,

Your obedient servant,

A. W. DICK,

*Inspector of Boilers, District No. 3.*

CALGARY, December 31, 1920.

L. C. CHARLESWORTH, ESQ.,

*Deputy Minister of Public Works,*

Edmonton, Alberta.

SIR:—I have the honour to submit to you my Annual Report for the year ending December 31st, 1920, in accordance with Section 17, Clause 4, of The Boilers Act, 1918.

Commencing the year with the assistance of Inspector A. W. Dick, of High River, arrangements were made to inspect as many heating plants as possible in January, February and March, and part of April, when quite a number of boilers were inspected, upon which Inspector Dick will report.

Examinations have been held at the Provincial Public Works, Office, Calgary, for engineers on the first Saturday of each month throughout the year. The number of applicants during the year was 212.

Certificates were recommended as follows:—

First Class .....	1
Second Class .....	12
Third Class .....	45
Traction Final .....	27
Provisional .....	85
Renewals of Provisionals .....	1
Fireman's Final .....	27
Total .....	198

Fourteen applicants failed to obtain sufficient marks allotted to the various examinations written for, and were recommended certificates of lower classes and grading.

The total number of boilers inspected by me during the year is 215 for which Certificates were issued as follows:—

#### HIGH PRESSURE.

Water Tube .....	12
Horizontal Return Tubular .....	98
Locomotive Firebox .....	23
Vertical Fire Tube .....	20
Marine Type .....	5
Air Receivers .....	1
Total .....	159

## LOW PRESSURE.

Horizontal Tubular.....	24
Locomotive Firebox.....	12
Internal Furnace.....	5
Vertical Fire Tube.....	10
Cast Iron Sectional.....	5
Total.....	56

## Condition of boilers inspected:

Good .....	100
Very Fair .....	86
Fair .....	29
Total.....	215

I am pleased to report that considerable progress has been made in regard to the keeping out of scale in boilers. Several boilers have been re-tubed and repairs made to fire-boxes by welding up cracks both inside sheets and fire-hole rings, which, up to the present time, is proving satisfactory. There has been five traction boilers pass through this district after having the fire-boxes repaired.

Two special inspections were made to examine boilers damaged by over-heating, due to an accumulation of mud on the heating surface. The boilers were repaired satisfactorily.

I have issued forty-two permits in accordance with Section 39 of The Boilers Act.

I am pleased to report that no accidents have been reported, or any person injured in this district during the year.

Correspondence has been heavy both in-coming and out-going, 620 letters having been received and 500 dispatched.

I have the honour to be, sir,

Your obedient servant,

JOS. BUXTON,

*Inspector of Boilers, District No. 4.*

HANNA, December 31, 1920.

L. C. CHARLESWORTH, ESQ.,  
*Deputy Minister of Public Works,*  
 Edmonton, Alberta.

SIR:—I have the honour to submit to you my Annual Report for the year ending December 31, 1920, in accordance with the requirements of Section 17, Clause 4, of The Boilers Act.

Excepting for six weeks when I was laid up with the 'flu, and its after effects, the early part of the year, until the end of May, was taken

up with inspecting the stationary boilers in the Drumheller Valley and the town of Stettler.

The beginning of June, I started into the country to inspect agricultural boilers, continuing this work until the weather became too severe in November.

Engineers' Examinations have been held at Hanna the first Saturday in each month throughout the year, excepting in June, August and November, in accordance with instructions received from head office.

Certificates were recommended as follows:—

Second Class.....	1
Third Class.....	7
Traction Final.....	3
Provisional.....	31
Renewal of Provisional.....	25
Total.....	67

Seven candidates failed to qualify in the class written for, but were granted certificates of a lower grade. One candidate failed entirely. Thirty-five candidates were refused examination on account of not having sufficient experience, or showing satisfactory proof of experience.

Three engineers had their certificates suspended. Mr. E. A. Heck, of Stettler, the holder of a Third-Class Certificate, had his Certificate suspended for operating the plant belonging to the Town of Stettler, knowing that he was exceeding the capacity of his Certificate. Mr. John Graham, of Wayne, holder of a Second-Class Certificate, had same suspended for neglecting to have two horizontal return tubular boilers under his charge kept in a clean condition. As a result both boilers were damaged, the same being the property of the Jewel Collieries, Wayne. Mr. G. Britzke, of Chinook, holder of a Provisional Certificate, had his Certificate cancelled on account of damaging a traction boiler owned by J. J. Neeb, of Chinook, by not having sufficient water in the boiler to cover the crown sheet.

A total of 270 boilers were inspected by me during the year, and 253 Certificates issued for same.

The boilers inspected may be classified as follows:—

#### HIGH PRESSURE.

Horizontal Return Tubular.....	46
Horizontal Furnace Tubular.....	2
Locomotive Firebox.....	173
Vertical.....	11
Water Tube.....	2
Air Receivers.....	4
Total.....	238

#### LOW PRESSURE.

Horizontal Return Tubular.....	8
Internal Furnace Return Tube.....	2
Locomotive Firebox.....	1
Vertical.....	3
Cast Iron Sectional.....	18
Total.....	32

## Condition of boilers:—

Good.....	192
Very Fair .....	58
Fair.....	20

I have to report the serious damaging of a 72"x18'-0" horizontal return tubular boiler at the A.B.C. Company's Mine Plant at Drumheller, on July the 13th. The Fireman heard a hissing noise in the furnace and looked in to ascertain the cause and saw water issuing from a bag in the bottom of the boiler. The boiler had at the time a pressure of 120 pounds registering on the pressure gauge. The bag was on the bottom of the front sheet, 56 inches from front head, and was 9 inches in diameter at the base and 4 inches deep. The original thickness of plate was 7-16 inch, and the thickness at the bottom of bag 3-32 inch, and upon examination was found to be cracked. Upon opening up the boiler for the purpose of an internal examination, it was found to contain a sticky clay to a depth of several inches. The feed water for this plant was drawn from the Red Deer River, which is very muddy at times, according to the time of the year. Engineer J. W. Drummond, who holds a First-Class Certificate, was in charge of this plant, but at the time of the accident was visiting Calgary.

I am pleased to state that I have no accidents to report, resulting in the physical injury to anyone.

I have to report three cases of prosecutions under Sections 4 and 38 of The Boilers Act. All cases were handed over to the Provincial Police, a conviction with fines being secured in each case.

Twenty-five permits were issued under Section 39 of The Boilers Act to the owners of boilers who at the time were unable to obtain the services of qualified engineers.

Nine special inspections were made during the year, all expenses incidental thereto being defrayed by the owners in accordance with Section 16 of the Act.

During the year I mailed 401 letters, and received 514.

I have the honour to be, sir,

Your obedient servant,

A. BRADSHAW.

RED DEER, December 31, 1920.

L. C. CHARLESWORTH, ESQ.,

*Deputy Minister of Public Works,*

Edmonton, Alberta.

SIR,—I have the honour to submit to you my Annual Report as Inspector of Boilers in District No. 6 for the year ending December 31st, 1920, in accordance with the provisions of Section 17, Clause 4, of The Boilers Act.

Up to the middle of May I was inspecting boilers at Innisfail, Olds, Red Deer, Ponoka and all boilers at the mines on the Brazeau branch. I then started west and inspected all boilers north of the Alberta Central Railroad and west between Red Deer and Ponoka. I then covered the whole of the territory from Crossfield east to the Red Deer River, north to Bashaw and east of the Calgary and Edmonton Railroad, finishing in the first week in December and during December I inspected the boilers at Didsbury and Stolberg.

Monthly examinations were held at Red Deer on the first Saturday of each month, excepting June and August. A total of 84 candidates presented themselves for examination. Three were not examined as they could not produce evidence of the necessary experience. Five failed to qualify for the grade for which they were examined, but were recommended for certificates of a lower grade. Six of the candidates were returned soldiers and were not charged any fee.

The following shows the class and number of certificates recommended to be issued:

Third Class .....	12
Traction Final .....	7
Provisional .....	37
Renewal of Provisional .....	24
Fireman's Final .....	1
Total .....	81

The correspondence class for engineers recently started by the Institute of Technology at Calgary is, and will prove, a great boon to the engineers and machine shop apprentices of the province. The fact of the course taking the student step by step through the Alberta Regulations for the construction and inspection of boilers is by itself of inestimable value to the engineer, also to the employer and inspector later on. I have been unable to advise the engineers of any such institute other than American schools before, and in practically all cases they absorbed knowledge which is not considered good practice in Alberta. There should be no need now for Alberta engineers to send money out of the province for correspondence courses.

During the year I inspected and visited 321 boilers, and certificates were issued for 271. Of the fifty visits for which no certificates were issued, some of the boilers had been inspected this year owing to overlapping of Inspectors' Districts a little and the moving of traction boilers from other districts. Some boilers had not been used since previous inspection. Three visits were return visits after repairs had been carried out, and an extra charge of \$10.00 was made in the nature of a special inspection. At least six owners' places were visited who had sold their boilers since last inspection, giving no notification of the sale to the Inspector.

The types and condition of the boilers inspected are as follows:

## HIGH PRESSURE.

Horizontal Tubular ..	43
Internal Furnace Return Tubular ..	1
Locomotive Firebox ..	179
Vertical Tubular ..	25
Water Tube ..	2
Return Flue ..	4
Air Receivers ..	22
Horizontal Furnace Tubular ..	5
Total ..	281

## LOW PRESSURE

Horizontal Tubular ..	9
Horizontal Cast Iron Sectional ..	29
Vertical Cast Iron Sectional ..	2
Total.....	40

I have no accidents of any consequence to report this year. A defective blow-down valve on a horizontal internal furnace tubular boiler at the Ardley collieries would possibly have been the cause of a serious accident had not the fusible plug acted. The engineer left the boiler with a heavy banked fire at 8 p.m. and sometime during the night enough water had escaped to bare the plug. The furnace circumferential seam was sprung slightly and a few of the staybolts leaked.

Another accident to a horizontal cast iron sectional heating boiler in the Mechanical Garage at Red Deer, resulting in the cracking of four sections across the top, emphasizes the value of the fusible or safety plug; even if only from a monetary point of view. The owner was ordered at last inspection to fit the plug, but failed to do so. Had the sum of about \$4.00 been invested in fitting the plug, he would be some hundred dollars to the good today, besides saving the inconvenience of a cold garage. The cause of this accident was due to shortage of water in the boiler and turning cold feed on to hot, dry heating surfaces. I cannot emphasize too strongly the value of the fusible plug provided it is kept in an operative condition.

Four new mines have started operations within the last twelve months in my district and in all cases second-hand equipment has been used. It seems ill-advised and unbusinesslike for three and four companies to start operations, in some cases within 150 yards of each other, usually with very little subscribed capital; in fact, it seems with just about enough to install poor equipment, when one well-equipped plant would produce more, with less expense, especially as regards overhead.

Nineteen permits were issued under Section 39 of The Boilers Act to owners of boilers who, at the time, were unable to secure the services of qualified engineers.

Special inspections were made by me at Three Hills, Ardley, Saunders Creek and Stolberg on the Brazeau Branch, the expenses incidental thereto being defrayed by the owners of the boilers.

Letters and parcels mailed total 731; of these 25 were under registered cover.

I have the honour to be, Sir,

Your obedient servant,

J. DOUGLAS,

*Inspector of Boilers, District No. 6.*

CAMROSE, December 31, 1920.

L. C. CHARLESWORTH, ESQ.,

*Deputy Minister of Public Works,*

Edmonton, Alberta.

SIR,—I have the honour to submit to you my Annual Report as Inspector of Boilers for the year ending December 31st, 1920, in accordance with Section 17 of The Boilers Act.

During the latter part of the month of January and nearly the whole of the month of February I was confined to headquarters with a severe attack of 'flu. Upon my recovery I again took up my duties and proceeded with inspections in the various towns in my district, arranging these inspections as nearly as possible to work in with the spring examinations for engineers, which were held in the following towns: Wainwright, Viking, Provost and Killam. The summer and fall months were spent in inspecting agricultural boilers and boilers used for other purposes throughout the country.

In addition to the spring examinations for engineers the usual monthly examinations were held in Camrose with the exception of the months of February, June and August.

The following is a summary of the certificates recommended by me:

Second Class .....	1
Third Class.....	8
Traction Final .....	7
Provisional .....	43
Renewal of Provisionals .....	31
Fireman's Final .....	2
Total.....	92

Two candidates failed completely. Thirteen failed for the class tried for and were granted certificates of a lower grade. Eight were turned down for lack of experience.

The following is a summary of the boilers inspected by me:

#### HIGH PRESSURE.

Horizontal Tubular.....	11
Locomotive Firebox.....	178
Return Flue.....	1
Vertical .....	8
Air Receivers.....	24
Total .....	222



## LOW PRESSURE.

Steel Heating .....	7
Cast Iron Heating .....	6
Total.....	13

## Condition of boilers inspected:

Good .....	137
Very Fair.....	67
Fair.....	23
Poor.....	3
Condemned.....	2
Undergoing Repairs .....	3
Total.....	235

Two hundred and one inspection certificates were issued by me during the year.

Owing to the early advent of winter in 1919 a large number of owners of traction boilers were unable to get their boilers home, and this, coupled with the late spring of 1920, hampered inspections to a considerable extent. This was partly compensated for by the good weather prevailing during the summer and fall months.

I am pleased to say that I have no serious accidents to report.

I recommended to you the cancellation of one engineer's certificate, whom I found had broken the seal of a safety valve on a boiler under his charge and set the valve at 15 pounds in excess of the safe working pressure as allowed on the Inspection Certificate.

Eleven permits were issued by me during the year to owners who were unable to secure the immediate services of duly qualified engineers.

Two special inspections were made, all expenses incidental thereto being defrayed by the owners, in accordance with Section 16 of The Boilers Act.

Letters and parcels received, 418; letters and parcels sent, 613.

I have the honour to be, Sir,

Your obedient servant,

J. F. HAWKINS,

*Inspector of Boilers, District No. 7.*

EDMONTON, December 31, 1920.

L. C. CHARLESWORTH, Esq.,

*Deputy Minister of Public Works,*

Edmonton, Alberta.

SIR,—I have the honour to submit to you my Annual Report as Inspector of Boilers in the Edmonton district for the year ending December 31st, 1920, in accordance with Section 17, Clause 4, of The Boilers Act.

The early part of the year was devoted to inspection work in the coal fields west of Edmonton, also plants in and close to the city. The month of March was almost wholly taken up with spring examination of candidates for engineers' certificates, these being held at Spirit River, Grande Prairie, High Prairie, Peace River and Westlock.

Examinations have also been held regularly on the first Saturday in each month in Edmonton.

During the year a total of 229 candidates were examined and of these 222 were found to be qualified and were therefore recommended for certificates. In addition to these a number of applications could not be entertained, the applicants being unable to produce evidence of having had the necessary experience.

The following summary shows the various classes of certificates recommended:

First Class .....	1
Second Class .....	6
Third Class .....	55
Traction Final .....	27
Fireman's Final .....	9
Provisional .....	90
Renewal of Provisional .....	34
Total .....	222

During the year the number of visits made in the course of inspection of boilers was 311, and the various types inspected are enumerated as follows.

#### HIGH PRESSURE

Horizontal Tubular .....	80
Horizontal Internal Furnace .....	23
Return Flue .....	4
Locomotive Firebox .....	50
Vertical .....	34
Water Tube .....	27
Air Receivers .....	30
Total .....	248

#### LOW PRESSURE

Steel .....	59
Cast Iron .....	4
Total .....	63

#### Condition of boilers inspected:

Good .....	194
Fair .....	105
Moderate .....	7
Poor .....	4
Condemned .....	1
Total .....	311

The total number of inspection certificates issued for the year is 285.

No serious accident involving injury to anyone in the operation of boilers and engines has been reported during the year. The

most serious accident to a boiler was the bulging of a firebox crown sheet, caused through an accumulation of solid matter under the girder stays, and the consequent overheating of the plate. As this boiler was of a rather obsolete design, it was decided that it would not be worth the expense of repairing and was therefore condemned.

Considerable pitting and corrosion is noticeable in many of the heating plant boilers and advice and suggestions have been given to caretakers, and in many instances also to owners, as to operating with a view to arresting or counteracting such pitting.

It is gratifying to note that quite a number of new boilers, built to Alberta-approved designs for heating purposes, have been installed during the year, showing that the difficulty in obtaining such boilers in the preceding three or four years has to some extent been overcome, thus gradually eliminating the use of second-hand material for such installations.

Five permits were issued under Section 39 of The Boilers Act to owners of steam boilers upon production of evidence of their inability to obtain certificated engineers.

Six special inspections were made during the year at the request of the several owners, all expenses being defrayed by them.

Number of letters received, 486; number of letters despatched, 532.

I have the honour to be, Sir,

Your obedient servant,

J. F. CARGILL,

*Inspector of Boilers, District No. 9.*

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EDMONTON, December 31, 1920.

L. C. CHARLESWORTH, ESQ.,

*Deputy Minister of Public Works,*

Edmonton, Alberta.

SIR,—I have the honour to submit to you my Annual Report as Boiler Inspector for the year ending December 31st, 1920, in accordance with the requirements of Section 17, Clause 4, of The Boilers Act.

Early in the year I undertook inspections of the several boilers which are situated along the C.N.R. main line, commencing at Jasper and stopping off for this purpose at several sidings until Gainford was reached March the second. During April and May I was kept continually busy in the city on inspection work. This was due to the backward spring weather and consequent impossibility of taking up work in my district.

In my own district I have had a very satisfactory year, covering a good percentage of the boilers, condition and number of same being tabulated in this report. Considerable car travelling is necessary in covering these inspections.

March was devoted mostly to the holding of the advertised engineers' examinations held at eight scattered points throughout the district for the benefit of those engineers who desired to qualify for certificates under the Act.

The total number of candidates examined who were successful in obtaining engineers' certificates, follows:

Third Class.....	15
Traction Final.....	11
Provisional.....	42
Renewal of Provisional.....	24
Fireman's Final.....	1
Total.....	93

The total number of boilers inspected by me was 291, of which 183 were in good, 105 in fair and 3 in poor condition.

The following is a list of the types and number of boilers inspected by me:

#### HIGH PRESSURE.

Horizontal Return Tubular.....	31
Internal Furnace.....	11
Locomotive Firebox.....	175
Vertical.....	25
Water Tube.....	7
Air Receivers.....	12
Total.....	261

#### LOW PRESSURE.

Horizontal Return Tubular.....	9
Internal Furnace.....	1
Locomotive Firebox.....	5
Vertical.....	1
Cast Iron.....	14
Total.....	30

During the year 269 inspection certificates were issued by me.

No cases of accidents have come to my notice in connection with boilers and engines.

I have no cases to report where it was found necessary to take action for violation of The Boilers Act.

Sixteen permits were given to owners of boilers, authorizing persons named on the permits to carry on operations until a qualified engineer could be secured. These were issued under Section 39 of the Act. Two applicants who applied to me for permits failed to complete the necessary affidavit stating their requirements and their fees were turned over to the Department.

Thirteen special inspections were carried out during the year, the several owners defraying the expenses in every instance, as required by Section 16 of the Act.

A total of 612 letters was mailed in connection with boilers and engines during the year.

I have the honour to be, Sir,

Your obedient servant,

J. H. MAINWARING,

*Inspector of Boilers, District No. 8.*

## ACCOUNTANT'S BRANCH

EDMONTON, February 16, 1921.

L. C. CHARLESWORTH, ESQ.,  
*Deputy Minister of Public Works,*  
 Edmonton, Alberta.

SIR,—As Accountant of the Department of Public Works, I beg to submit my report for the year ending December 31st, 1920.

A comparison of the figures given below, with those of previous years, shows that there is a steady increase in the detail work of the Branch from year to year.

The maintenance of the Alberta Provisional Police Barracks, of which there are at present ninety-seven, was, from January 1st, 1920, brought under the jurisdiction of the Department and thus added very considerably to the duties of the Branch.

The Mines Branch was, on May 1st, 1920, transferred from this Department to the Department of Provincial Secretary. The expenditure incurred by the Mines Branch was nominal and therefore the transfer did not materially lessen the work of this Branch.

The various ledgers taking care of expenditure by vote and, on Highways, Main; District and Local, Bridges; Ferries; Buildings, Construction and Maintenance; Public Institutions, Maintenance and Administration, have been duly balanced and found correct.

I give you below, for comparison, the total number of vouchers passed by the Branch during the years 1919 and 1920.

	1919	1920
Vouchers Passed to Treasury . . . . .	14,938	19,599
Vouchers Passed in Connection with Expenditure from L.I.D. Trust Account "A" Funds . . . . .	1,445	1,212
	16,383	20,811

—an increase of over 4,000 vouchers.

The above total for 1920 covered 21,792 accounts and 4,636 pay-lists, making a grand total of 26,428 handled by the Branch during the year.

The number of Cheques Issued in Payment of Trust Account, "A" Accounts, was . . . . .	3,305
And the number Issued in Connection with Public Works Suspense Account . . . . .	485
A total of . . . . .	3,790

In connection with Stock Advance Account, there are, also, a large number of accounts issued each year, averaging about 1,000, all of which are checked and collection of same taken care of by the Branch; stock books being kept and each item of debit and credit recorded.

The total number of letters mailed from the Branch was 4,626.

Owing to the Mines Branch having been transferred to the jurisdiction of the Department of Provincial Secretary, there was a considerable decrease in the amount of revenue received by the Department, the total for the year 1920 being \$239,602.78, against \$351,427.92 of the previous year. The amount of revenue collected by the Mines Branch to date of transfer (May 1st) was \$101,403.00.

The revenue collected by the Steam Boilers Branch for the year \$30,299.10, as compared with the previous year, showed an increase of about \$4,000.00. The Surveys Branch had an increase of about \$1,000.00.

The total amount received from the Public Institutions, for the sale of produce, etc., was about \$27,000 00.

The total amount received from units and deposited to the credit of Local Improvement District Trust Account "A" Account, was \$319,733.11; this sum, together with balance brought forward from the previous year, \$220,045.99, and interest on the amount of deposit for the year, \$11,404.35, gave a grand total of \$551,183.45 available.

The total expenditure from Trust Account "A" during the year was \$208,237.36, which included an amount of \$25,000 00 paid to the Provincial Treasurer, as a proportion to be borne by the account for the cost of administration through the Department of Municipal Affairs.

The staff of the Branch consists of the Accountant, Assistant Accountant, seven clerks and one messenger.

Respectfully submitted,

TOM S. S. DAVIES,

*Accountant.*

## CORRESPONDENCE BRANCH

L. C. CHARLESWORTH, Esq.,  
*Deputy Minister of Public Works,*  
 Edmonton, Alberta.

SIR,—I have the honour to submit the Annual Report of the Correspondence Branch of the Public Works Department for the year ending December 31st, 1920.

### LETTERS RECEIVED.

Branch	No.
Highways.....	21,258
Surveys and Drainage.....	9,269
Steam Boilers.....	5,632
Accountant and Architect.....	21,223
Coal Mines (January 1st to April 30th).....	4,052
	<u>61,434</u>

### LETTERS SENT

Branch	No.	Postage
Highways.....	18,155	\$815.17
Surveys.....	10,706	295.73
Drainage.....	996	40.10
Steam Boilers.....	8,399	406.36
Accountant.....	4,626	145.70
Architect.....	9,991	271.85
Coal Mines (January 1st to April 30th).....	4,321	149.20
	<u>57,194</u>	<u>\$2,124.11</u>

Total Number of Communications.....	118,628
Registered Letters Mailed.....	5,162
Registered Letters Received.....	1,410

### CASH RECEIVED.

Branch	Entries	Amount
Steam Boilers.....	1,970	\$ 30,759.44
Coal Mines (January 1st to April 30th).....	1,107	106,573.04
Accountants.....	62	41,971.92
Architects.....	536	32,480.03
Surveys.....	425	9,426.46
	<u>4,100</u>	<u>\$221,210.89</u>

Cash Transferred to Other Departments.....	<u>\$40,078.45</u>
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### NEW FILES MADE AND INDEXED.

Surveys Branch.....	587
Highways Branch.....	650
Drainage Branch.....	24
Architect's Branch.....	109
	<u>1,370</u>

Respectfully submitted,

W. T. AIKEN,  
*Chief Correspondence Clerk.*









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